



**FOURTH QUARTER 1992 PROGRESS REPORT  
L.E. CARPENTER SITE, WHARTON, NEW JERSEY**

Prepared on behalf of L.E. Carpenter and Company  
for the New Jersey Department of Environmental  
Protection and Energy

February 1993

Prepared by:

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346070





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## L.E. CARPENTER QUARTERLY REPORT

### 1.0 GROUNDWATER ACTIVITIES

#### 1.1 Groundwater Level Measurement

Water level and product thickness measurements were made at all of the monitoring wells at the L.E. Carpenter site on 14 January 1993. Water level measurements were also made at eight (8) staff gauges and at the RP-1 measurement point on the concrete wall adjacent to the Rockaway River. Surface water elevations were determined by measuring the vertical distance between the top of the staff gauge (or paint mark) and the water surface. One drainage ditch point (DC-P0) had to be eliminated after it was found to have been moved from the original position. Ditch elevations were interpolated between DC-P1 and DC-P3. In general, water levels were much higher than normal due to the heavy rainfall which occurred prior to the elevation measurements.

#### 1.2 Groundwater Sampling

Groundwater monitoring wells MW-4, MW-14S, MW-22, and MW-25 were sampled for benzene, toluene, ethylbenzene, and xylene (BTEX) analysis (EPA method 602) on 14 January 1992. Dedicated Well Wizard bladder pumps were installed in wells MW-4, MW-14s, MW-22, and MW-25 during December, 1992. A minimum of three well volumes were purged from each well prior to sampling. The samples were collected directly form the well wizard tubing and placed in forty (40) milliliter glass vials and preserved at four (4) degrees centigrade in a designated sample cooler.

Groundwater monitoring well MW-11d was sampled for BN+15 as requested by the NJDEPE. A decontaminated submersible pump and new 1/2 inch teflon tubing was used to purge a minimum of three well volumes prior to sampling. A laboratory cleaned teflon bailer was used to collect the sample. The samples were placed into a 950 milliliter glass jar and preserved at four (4) degrees centigrade in a designated sample cooler.

All samples were shipped with the necessary trip and field blanks to the WESTON Analytical Laboratory in Lionville, PA via overnight courier under a WESTON chain-of-custody.

#### 1.3 Product Recovery

No significant operational difficulties were encountered with the Enhanced Immiscible Product Recovery System (EIPRS) during the reporting period. A total of 556 gallons of product was recovered by the system during the fourth quarter of 1992.

#### 1.4 Well Point Installation

A total of 23 temporary well points were installed on the site on January 6 through 8 and February 3 through 4. The well points were centered around three areas of known and suspected product presence- MW-1, MW-11s, and MW-12s. Well points WP-A1 through WP-A9 were installed to further delineate the extent of free product downgradient of MW-1. Well points WP-B1 through WP-B10 were installed to further delineate the extent of free product in the vicinity of MW-11s. Well points WP-C1 through WP-C4 were installed to delineate the extent of the oil-type product in the vicinity of MW-12s. All well points are numbered in order of installation. The depths of the well points range from 11 feet to 17 feet. Each well point was constructed of 2-inch PVC with 10 feet of 0.020 inch PVC screen. WP-B4, WP-B6, and WP-B7 were installed with 9 feet of screen each. A filter pack of #2 morie sand , bentonite seal, and grout cap were added to each well point. Each well point was also equipped with a locking well cap. Protective casings were installed only where danger of vehicle movement existed and on flush mounted well points.

Two of the well points (WP-B7 and WP-B8) were installed on the Wharton Enterprises property between the Air Products drainage ditch and the Rockaway River as requested by the NJDEPE. The third location suggested by the NJDEPE, between RW-2 and MW-14s next to the ditch, was not accessible due to dense vegetation and the fence structure. The close proximity of MW-14s allows adequate monitoring of floating product in the immediate vicinity of the well point proposed by NJDEPE and not installed.



## 2.0 RESULTS

### 2.1 Groundwater Elevation Data

Groundwater level elevation data for the 14 January, 1993 measurement round are presented in Table 1 in Appendix A, and equipotential maps for the shallow, intermediate, and deep zones are presented in Appendix B. For those wells with measurable product, water table depression caused by the floating product layer was corrected using the method presented in previous quarterly reports (see WESTON, April 1992)

### 2.2 BTEX Analytical Results

The full data package for groundwater samples collected from MW-4, MW-14S, MW-22 and MW-25 are presented in Appendix C. This data is summarized in Table 2-1. The highest BTEX concentration was detected in MW-22 (3.07 ppm total). BTEX concentrations were detected in MW-4 at very low levels (0.0099 ppm total). No BTEX was detected in MW-14s or MW-25.

### 2.2 BNA Analytical Results

The full data package for groundwater samples collected from MW-11d are presented in Appendix C. Bis(2-ethylhexyl)phthalate was detected at a concentration of 0.82 ppm. This compound was also detected in the field blank at an estimated concentration of 0.002 ppm.



Table 2-1

**Summary of BTEX Analytical Results  
Fourth Quarter 1992  
L.E. Carpenter Site, Wharton, New Jersey**

Parameter	Concentration (ppm)			
	MW-4	MW-14S	MW-22	MW-25
Benzene	0.001 U	0.001 U	0.001 U	0.001 U
Toluene	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene	0.0039	0.001 U	0.470	0.001 U
Xylene	0.006	0.002 U	2.600	0.002 U

Data Qualifiers

U = Compound was analyzed for but not detected. The associated numerical value is the estimated sample quantitation limit which is included and corrected for dilution and percent moisture.



### 3.3 MW-11d Results

Bis(2-ethylhexyl)phthalate was detected in the sample from MW-11d at a concentration of 0.82 ppm. This result is significantly less than the concentration of 3.6 ppm detected in January, 1990. Additionally, diethylphthalate and N-nitrosodiphenylamine, detected at very low concentrations in 1990, were not detected in this sample. Based on the fact that DEHP is the only contaminant detected during the most recent round of sampling as well as the significant decline in concentration, WESTON feels that further sampling of MW-11d is not warranted.

### 3.4 Summary

The analytical results presented in Table 2-1 indicate that the overall BTEX concentrations for the fourth quarter of 1992 are slightly higher than those for the third quarter of 1992. The maximum xylene concentration was detected in MW-22 (2.6 ppm). This is an increase from the third quarter concentration (1.5 ppm), but significantly lower than the value for the same well (20 ppm) detected during the second quarter of 1992. Similarly, analytical results for samples collected during the second, third, and fourth quarters of 1992 indicate concentrations of ethylbenzene and xylene in MW-4 have been steadily decreasing, from 0.1 ppm and 0.3 ppm respectively in the first quarter to 0.0039 ppm and 0.006 ppm respectively this quarter. Samples for MW-14s contained slight amounts of the same compounds in the second quarter, but no BTEX has been detected in this well in the last two quarters. MW-25 has had no BTEX detected since its installation during the first quarter of 1992.

It is suspected that the constant removal of immiscible product by the EIPRS is having a positive impact on the dissolved organic compound concentrations. This data confirms the previous quarterly report findings that the eastern-most perimeter of the dissolved organic compound plume may have retreated slightly from its former position between MW-14S and MW-25 and currently lies between MW-22 and MW-14S (see Figure 1 in Appendix B for well locations).



## **REFERENCES**

**WESTON, 1992. Second Quarter 1992 Progress Report, L.E. Carpenter Site, Wharton, New Jersey.** Report prepared for the New Jersey Department of Environmental Protection and Energy on behalf of L.E. Carpenter & Co., Cincinnati, OH



## **APPENDIX A**

### **WATER LEVEL AND PRODUCT THICKNESS DATA**

TABLE 1. DEPTH TO WATER, WATER LEVEL ELEVATION AND PRODUCT THICKNESS DATA,  
MEASURED ON JANUARY 14, 1993, L.E. CARPENTER SITE, WHARTON, NJ.

WELL	MEASURING PT. ELEVATION (FT MSL)	DEPTH TO PRODUCT (FT)	DEPTH TO WATER (FT)	PRODUCT THICKNESS OR SHEEN OBSERVATIONS (FT)	OBSERVED WATER LEVEL ELEVATION (FT MSL)	CORRECTED WATER LEVEL ELEVATION * (FT MSL)
MW-001	638.97	12.17	14.38	2.21	624.59	626.49
MW-002	633.39		7.51	0.00	625.88	625.88
MW-003	632.27	6.42	7.28	0.86	624.99	625.73
MW-004	632.31		6.26	SHEEN	626.05	626.05
MW-005	632.20		5.82	0.00	626.38	626.38
MW-006	632.00		6.04	SHEEN	625.96	625.96
MW-007	630.68		4.38	SHEEN	626.30	626.30
MW-008	628.79		2.28	SHEEN	626.51	626.51
MW-009	630.18		3.81	0.00	626.37	626.37
** MW-010	633.65		7.39	SHEEN	626.28	626.28
MW-11S	632.96	6.93	6.97	0.04	625.99	626.02
MW-11I	632.82		6.69	0.00	626.13	626.13
MW-11D	632.42		3.78	0.00	628.64	628.64
MW-12S	633.18	6.86	6.88	0.02	626.30	626.32
MW-12I	633.06		6.93	0.00	626.13	626.13
MW-13S	631.23		4.62	0.00	626.61	626.61
MW-13I	630.66		4.84	0.00	625.82	625.82
MW-14S	628.51		2.94	0.00	625.57	625.57
MW-14I	628.23		2.53	0.00	625.70	625.70
MW-14D	628.53		ARTESIAN	0.00	ARTESIAN	ARTESIAN
MW-15S	636.77		10.34	0.00	626.43	626.43
MW-15I	636.66		10.21	0.00	626.45	626.45
MW-16S	634.47		7.27	0.00	627.20	627.20
MW-16I	634.96		7.96	0.00	627.00	627.00
MW-17S	634.74		8.00	0.00	626.74	626.74
MW-17D	634.86		8.13	0.00	626.73	626.73
MW-18S	631.26		5.36	0.00	625.90	625.90
MW-18I	631.04		4.83	0.00	626.21	626.21
MW-18D	630.77		2.78	0.00	627.99	627.99
MW-019	638.88		11.60	0.00	627.28	627.28
MW-020	636.77		9.82	0.00	626.95	626.95
MW-021	628.80		3.37	0.00	625.43	625.43
MW-022	628.74		3.00	0.00	625.74	625.74
MW-023	630.64		2.10	0.00	628.54	628.54
MW-024	629.03		1.50	0.00	627.53	627.53
MW-025	627.33		1.76	0.00	625.57	625.57
RW-001	637.38		10.85	SHEEN	626.53	626.53
RW-002	631.68		5.87	SHEEN	625.81	625.81
RW-003	631.99		5.92	SHEEN	626.07	626.07
GEI-1I	630.78		4.51	0.00	626.27	626.27
GEI-2S	637.27		10.46	0.00	626.81	626.81
GEI-2I	637.27		10.50	0.00	626.77	626.77
GEI-3I	639.85		12.62	0.00	627.23	627.23

\* Estimated water level elevation calculated using a product specific gravity of 0.86.

\*\* Measuring point elevation corrected to top of plastic cover casing.

MEASURING POINT	ELEVATION OF MEASURING POINT	DEPTH TO WATER	WATER LEVEL ELEVATION
DC-P0	625.73	2.42	623.31
DC-P1	625.26	1.90	623.36
DC-P2	628.79	3.25	623.54
DC-P3	625.22	1.88	623.34
DC-P4	625.10	1.82	623.28
DC-P5	625.16	1.90	623.26
RP-01	629.65	2.50	627.15
RP-02	627.75	1.60	626.15
RP-03	627.11	2.24	624.87

TABLE 2. PRODUCT THICKNESS DATA,  
MEASURED ON FEBRUARY 9, 1993, L.E. CARPENTER SITE, WHARTON, NJ.

WELL	DEPTH TO PRODUCT (FT)	DEPTH TO WATER (FT)	PRODUCT THICKNESS OR SHEEN OBSERVATIONS (FT)
MW-1	13.06	14.61	1.55
MW-2		8.21	0.00
MW-3	7.15	7.76	0.61
MW-4		7.06	0.00
MW-6		7.68	0.00
MW-7		5.54	0.00
MW-8		4.82	0.00
MW-9		4.38	0.00
MW-10		8.42	SHEEN
MW-11S	7.65	13.36	5.71
MW-12S	7.68	7.88	0.20
MW-22		5.54	0.00
RW-1		11.68	0.00
RW-2		6.56	SHEEN
RW-3		6.78	0.00
WP-A1	9.96	11.76	1.80
WP-A2		13.56	0.00
WP-A3		9.61	0.00
WP-A4	9.25	11.60	2.35
WP-A5	12.18	12.22	0.04
WP-A6	11.68	11.72	0.04
WP-A7		9.31	SHEEN
WP-A8	12.00	12.10	0.10
WP-A9	13.86	14.08	0.22
WP-B1	7.86	12.76	4.90
WP-B2		6.80	SHEEN
WP-B3	7.58	12.56	4.98
WP-B4	6.10	10.02	3.92
WP-B5		6.82	SHEEN
WP-B6	6.45	7.26	0.81
WP-B7	4.31	5.30	0.99
WP-B8		4.26	0.00
WP-B9	7.18	7.24	0.06
WP-B10		7.28	0.00
WP-C1		8.56	0.00
WP-C2		8.29	0.00
WP-C3		6.93	0.00
WP-C4		9.08	0.00

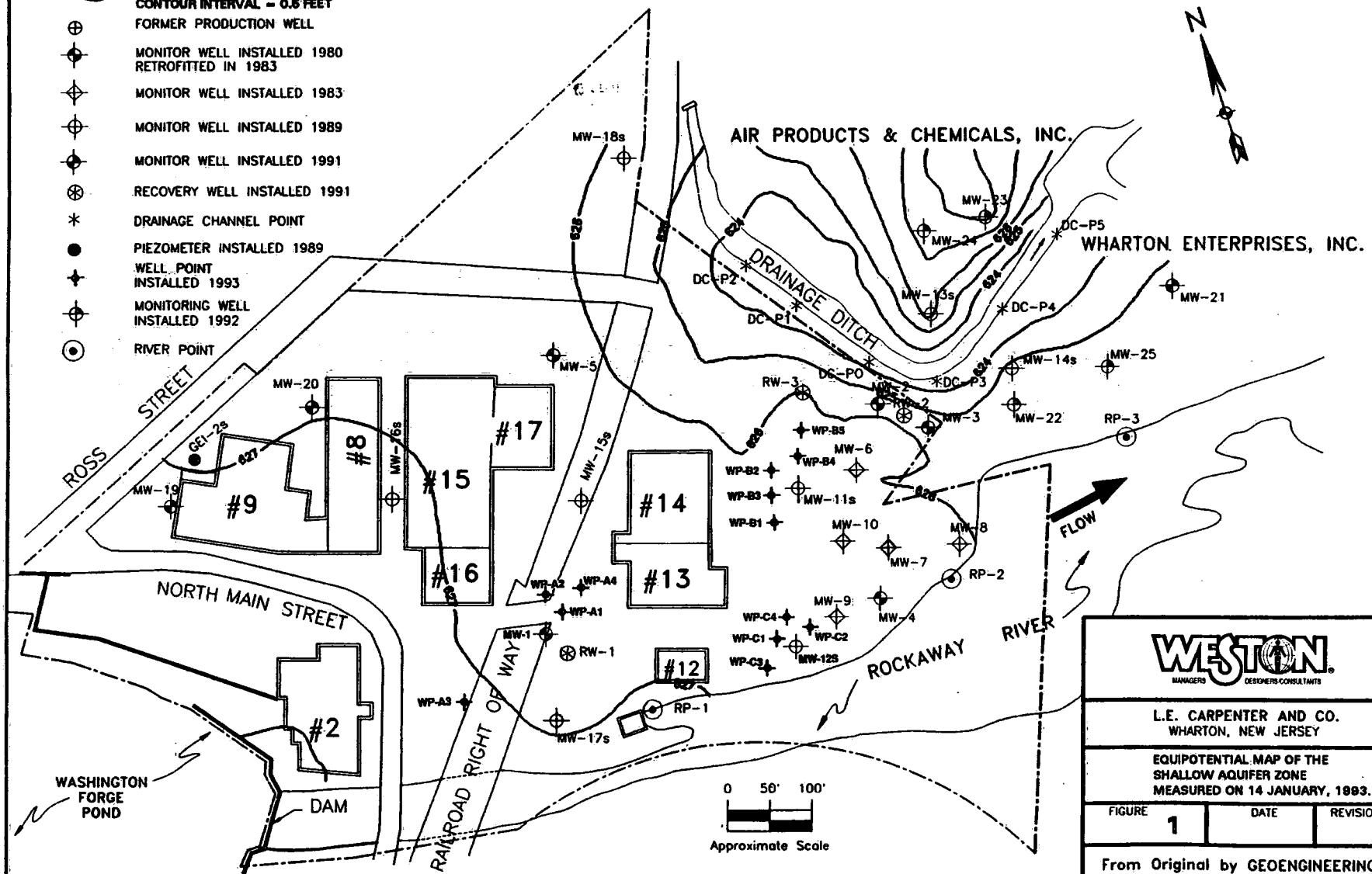


## APPENDIX B

### EQUIPOTENTIAL MAPS

## LEGEND

- PROPERTY LINE
- CONTOUR LINE
- CONTOUR INTERVAL - 0.5 FEET
- FORMER PRODUCTION WELL
- MONITOR WELL INSTALLED 1980  
RETROFITTED IN 1983
- MONITOR WELL INSTALLED 1983
- MONITOR WELL INSTALLED 1989
- MONITOR WELL INSTALLED 1991
- RECOVERY WELL INSTALLED 1991
- DRAINAGE CHANNEL POINT
- PIEZOMETER INSTALLED 1989
- WELL POINT  
INSTALLED 1993
- MONITORING WELL  
INSTALLED 1992
- RIVER POINT



**WESTON**  
MANAGERS DESIGNERS CONSULTANTS

L.E. CARPENTER AND CO.  
WHARTON, NEW JERSEY

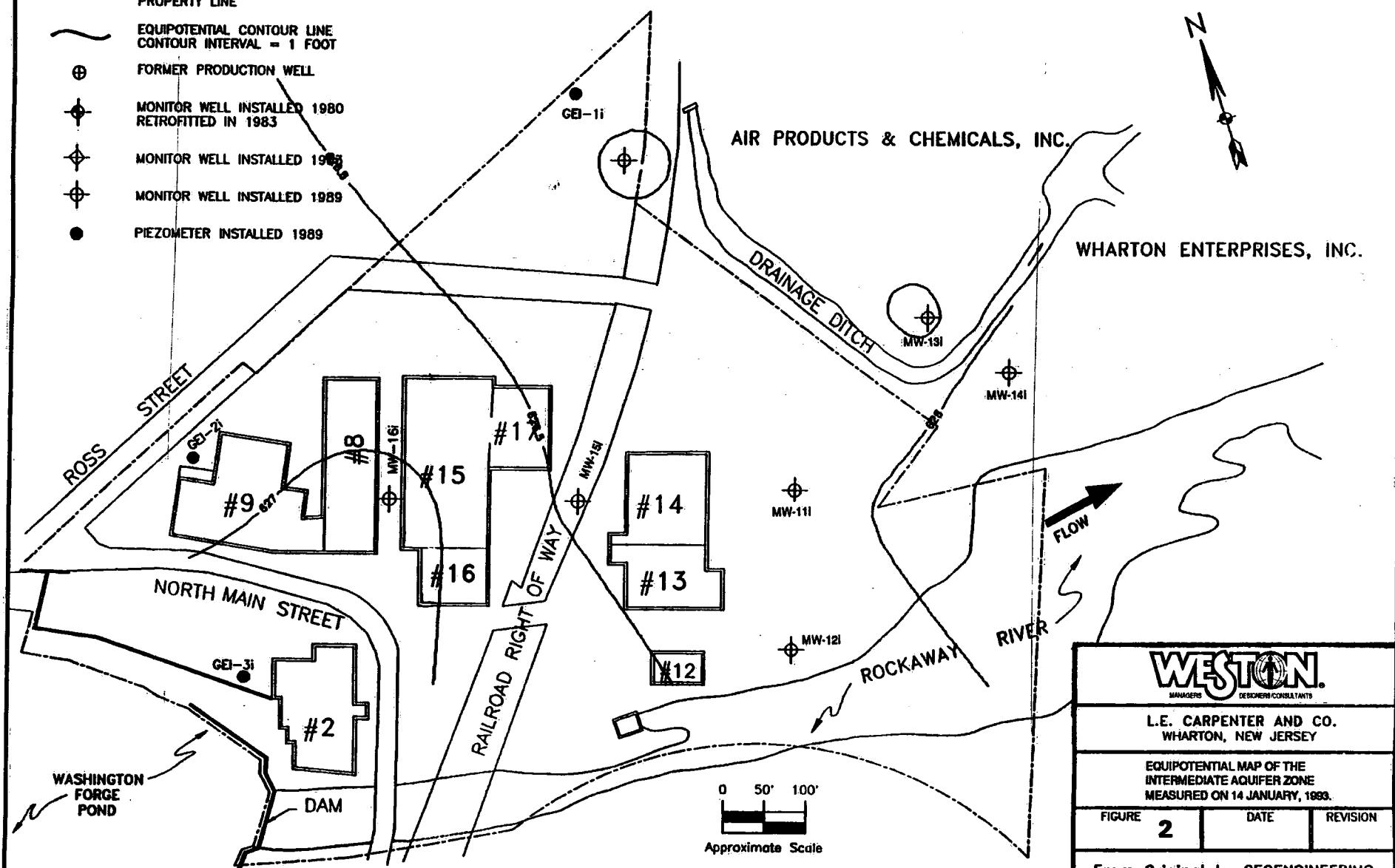
EQUIPOENTIAL MAP OF THE  
SHALLOW AQUIFER ZONE  
MEASURED ON 14 JANUARY, 1993.

FIGURE 1 DATE REVISION

From Original by GEOENGINEERING

## LEGEND

- PROPERTY LINE
- EQUIPOTENTIAL CONTOUR LINE  
CONTOUR INTERVAL = 1 FOOT
- ⊕ FORMER PRODUCTION WELL
- ◆ MONITOR WELL INSTALLED 1980  
RETROFITTED IN 1983
- ◆ MONITOR WELL INSTALLED 1983
- ◆ MONITOR WELL INSTALLED 1989
- PIEZOMETER INSTALLED 1989

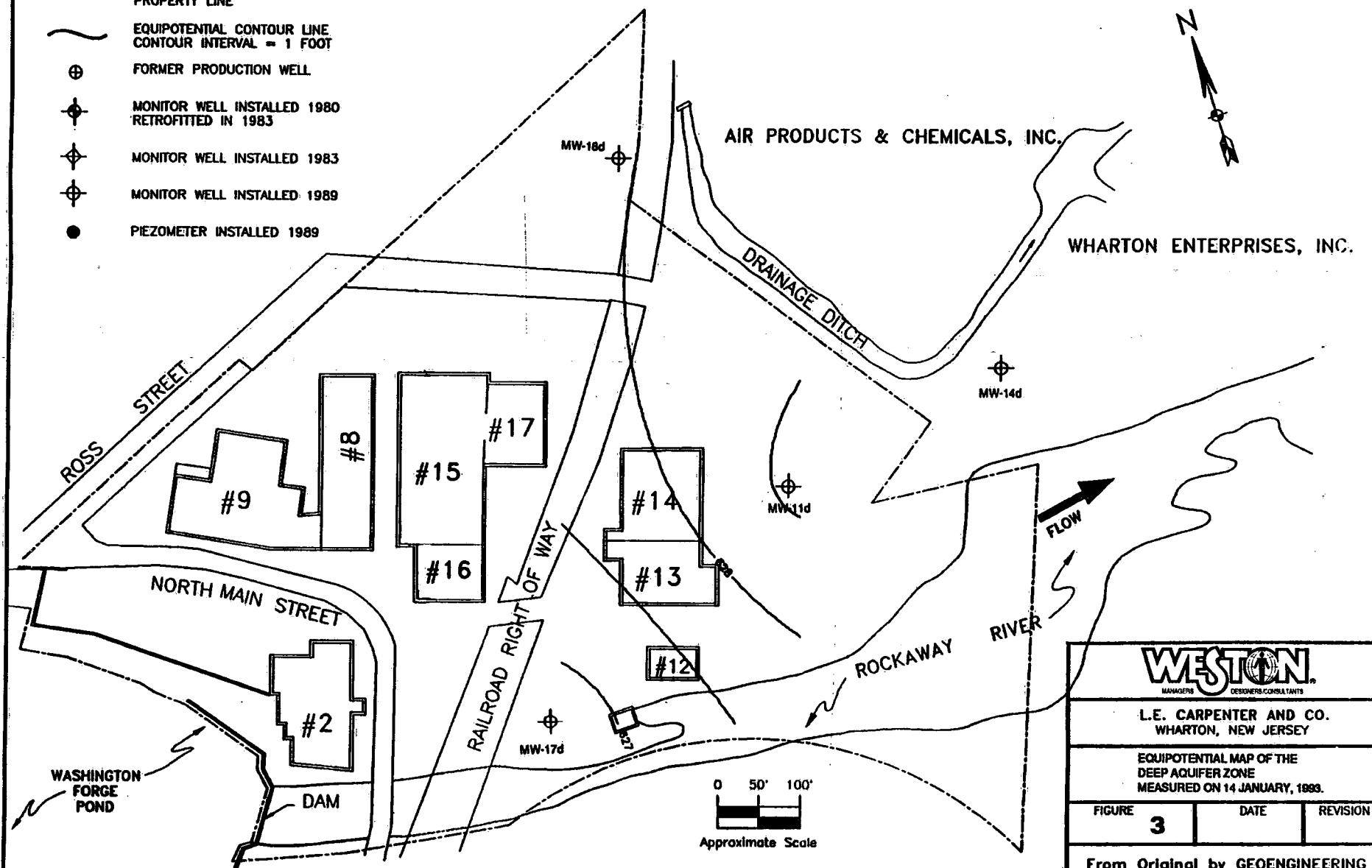


<b>WESTON</b> MANAGERS DESIGNERS CONSULTANTS		
L.E. CARPENTER AND CO. WHARTON, NEW JERSEY		
EQUIPOTENTIAL MAP OF THE INTERMEDIATE AQUIFER ZONE MEASURED ON 14 JANUARY, 1993.		
FIGURE 2	DATE	REVISION

From Original by GEOENGINEERING

## LEGEND

- PROPERTY LINE
- EQUIPOTENTIAL CONTOUR LINE  
CONTOUR INTERVAL = 1 FOOT
- ⊕ FORMER PRODUCTION WELL
- ✖ MONITOR WELL INSTALLED 1980  
RETROFITTED IN 1983
- ◆ MONITOR WELL INSTALLED 1983
- ◆ MONITOR WELL INSTALLED 1989
- PIEZOMETER INSTALLED 1989



**LEGEND**

- PROPERTY LINE**

**CONTOUR LINE:**

**CONTOUR INTERVAL - AS MARKED**

**FORMER PRODUCTION WELL**

**MONITOR WELL INSTALLED 1980 RETROFITTED IN 1983**

**MONITOR WELL INSTALLED 1983**

**MONITOR WELL INSTALLED 1989**

**MONITOR WELL INSTALLED 1991**

**RECOVERY WELL INSTALLED 1991**

**DRAINAGE CHANNEL POINT**

**PIEZOMETER INSTALLED 1989**

**WELL POINT (LOCATIONS APPROXIMATE)**

**WELL POINT INSTALLED 1993**

**MONITORING WELL INSTALLED 1992**

**RIVER POINT**

**STREET**

**ROSS**

**NORTH MAIN STREET**

**WASHINGTON FORGE POND**

**DAM**

**RAILROAD RIGHT OF WAY**

**AIR PRODUCTS & CHEMICALS, INC.**

**WHARTON ENTERPRISES, INC.**

**DRAINAGE DITCH**

**FLOW**

**RW-3**

**WP-B3**

**RW-2**

**WP-B5**

**WP-B6**

**WP-B7**

**MW-2**

**RW-1**

**WP-A3**

**WP-A4**

**WP-A5**

**WP-A6**

**WP-A7**

**WP-B1**

**WP-B2**

**WP-B3**

**WP-B4**

**WP-B5**

**WP-B6**

**WP-B7**

**MW-3**

**MW-4**

**MW-5**

**MW-6**

**MW-7**

**MW-8**

**MW-9**

**MW-10**

**WP-C1**

**WP-C2**

**WP-C3**

**WP-C4**

**WP-C5**

**RP-123**

**ROCKAWAY RIVER**

**Approximate Scale**

**0 50' 100'**

**WESTON**  
MANAGERS DESIGNERS CONSULTANTS

**L.E. CARPENTER AND CO.**  
**WHARTON, NEW JERSEY**

**PRODUCT THICKNESS ISOPACH MAP**  
**MEASURED ON 9 FEBRUARY 1993.**

FIGURE	4	DATE	REVISION
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From Original by GEOENGINEERING



## **APPENDIX C**

### **BTEX AND BNA ANALYTICAL RESULTS**

Roy F. Weston, Inc. - Lionville Laboratory  
 602X ANALYTICAL DATA PACKAGE FOR  
 LE CARPENTER

DATE RECEIVED: 01/15/93

RFW LOT #: 9301L306

CLIENT ID	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
MW-4	001	W	93LV1602	01/14/93	N/A	01/26/93
MW-4	001	R1	W 93LV16L3	01/14/93	N/A	01/27/93
MW-4	001	MS	W 93LV1602	01/14/93	N/A	01/26/93
MW-4	001	MSD	W 93LV1602	01/14/93	N/A	01/26/93
MW-14S	002		W 93LV1602	01/14/93	N/A	01/26/93
MW-22	003		W 93LV1602	01/14/93	N/A	01/26/93
MW-22	003	D1	W 93LV16L3	01/14/93	N/A	01/27/93
MW-25	004		W 93LV16L3	01/14/93	N/A	01/27/93
TB-1	006		W 93LV1602	01/14/93	N/A	01/26/93

LAB QC:

BLK	MB1	W	93LV1602	N/A	N/A	01/26/93
BLK	MB1 BS	W	93LV1602	N/A	N/A	01/26/93
BLK	MB1	W	93LV16L3	N/A	N/A	01/27/93
BLK	MB1 BS	W	93LV16L3	N/A	N/A	01/27/93



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QC Summary.....	N/A
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Standard Data.....	34
Raw QC Data.....	47

000001



**CHAIN OF CUSTODY**

93016 306

## Custody Transfer Record/Lab Work Request

Client	L.E. Carpenter	Refrigerator #	1	5				
Est. Final Proj. Sampling Date	11/15/93	#/Type Container	Liquid	26 246				
Work Order #	CLP-002-015-0300-00		Solid					
Project Contact/Phone #	M. O'Neill	Volume	Liquid	40 550				
AD Project Manager	Mike Young		Solid					
QC	CLP	Preservatives						
Del	CLP	ANALYSES REQUESTED	ORGANIC	INORG				
TAT	30 DAY		VOA	Metal				
Date Rec'd	11/15/93		BNA	CN				
Date Due	11/14/93		Pest/PCB					
Account #	LECARP-CLP		Herb					
WESTON Analytics Use Only								
MATRIX CODES: S - Soil SE - Sediment SO - Solid SL - Sludge W - Water O - Oil A - Air DS - Drum Solids DL - Drum Liquids L - EP/TCLP Leachate WI - Wipe X - Other F - Fish	Lab ID	Client ID/Description	Matrix QC Chosen (✓)					
			W	MS	MSD			
*001	MW-4	✓ ✓	H2O	11:45T	12:30	X	PP BN + 15	PP BN + 15 = 0625B by 605
002	MW-145			11:50		X		
003	MW-22				11:00	X		
004	MW-25				11:00	X		
005	FB-1				08:10	X		
006	FB-1				08:20	X		
007	MW-110				10:00	X		
								3TE, 1 by 602 = 6602+

## FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

## Special Instructions:

\*RECD 3 VACAS FOR.

Analyze for PP BN + 15 TICS  
 report DETHP only  
 SURE NJ CLP need neg. spectra  
 11/15/93 samples collected 11/14/93

## DATE/REVISIONS:

11/21/93 5,7 BNA for used &amp; digest

## WESTON Analytics Use Only

- Samples were: COC Tape was:  
 1) Shipped X or 1) Present on Outer  
 Hand Delivered Package Y or N  
 Airbill 6845-7720 2) Unbroken on Outer  
 2) Ambient or Chilled Package Y or N  
 3) Received in Good Condition Y or N  
 4) Labels Indicate Properly Preserved Y or N  
 5) Received Within Holding Times Y or N  
 COC Record Present Upon Sample Rec't Y or N

Relinquished by	Received by	Date	Time	Relinquished by	Received by	Date	Time
CLP				CLP	SG	11/15/93	
ELD							

Discrepancies Between  
 Samples Labels and  
 COC Record? Y or N  
 NOTES:

000003



**DATA SUMMARY**

## Roy F. Weston, Inc. - Lionville Laboratory

## Purgeable Aromatics by GC, Method 602

Report Date: 02/09/93 15:07

RFW Batch Number: 9301L306

Client: LE CARPENTER

Work Order: 6720-02-15-0300 Page: 1

	Cust ID:	MW-4	MW-4	MW-4	MW-4	MW-14S	MW-22
Sample Information	RFW#:	001	001	001 MS	001 MSD	002	003
	Matrix:	WATER	WATER	WATER	WATER	WATER	WATER
	D.F.:	1.00	1.00	1.00	1.00	1.00	1.00
	Units:	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
	REPREP						
aaa-Trifluorotoluene	63 %	69 %	80 %	69 %	101 %	86 %	
Benzene	1.0 U	1.0 U	88 %	86 %	1.0 U	1.0 U	
Ethylbenzene	3.0	3.9	97 %	91 %	1.0 U	E	
Toluene	1.0 U	1.0 U	101 %	95 %	1.0 U	1.0 U	
Xylene (total)	5.8	6.0	69 %	78 %	2.0 U	E	
	Cust ID:	MW-22	MW-25	TB-1	BLK	BLK BS	BLK
Sample Information	RFW#:	003 DL	004	006	93LV1602-MB1	93LV1602-MB1	93LV16L3-MB1
	Matrix:	WATER	WATER	WATER	WATER	WATER	WATER
	D.F.:	100	1.00	1.00	1.00	1.00	1.00
	Units:	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
	REPREP						
aaa-Trifluorotoluene	73 %	105 %	76 %	95 %	90 %	105 %	
Benzene	NA	1.0 U	1.0 U	1.0 U	88 %	1.0 U	
Ethylbenzene	470	1.0 U	1.0 U	1.0 U	100 %	1.0 U	
Toluene	NA	1.0 U	1.0 U	1.0 U	93 %	1.0 U	
Xylene (total)	2600	2.0 U	2.0 U	2.0 U	88 %	2.0 U	

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not requested. NS= Not spiked.  
 %= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. \*= Outside of EPA CLP QC

**Roy F. Weston, Inc. - Lionville Laboratory**

## Purgeable Aromatics by GC, Method 602

Report Date: 02/09/93 15:07

**RFW Batch Number: 9301L306**

**Client: LE CARPENTER**

Work Order: 6720-02-15-0300 Page: 2

**Cust ID:** BLK BS

**Sample** RFW#: 93LV16L3-MB1  
**Information** Matrix: WATER  
D.F.: 1.00  
Units: UG/L

<b>aaa-Trifluorotoluene</b>	<b>83</b>	<b>%</b>
<b>Benzene</b>	<b>93</b>	<b>%</b>
<b>Ethylbenzene</b>	<b>80</b>	<b>%</b>
<b>Toluene</b>	<b>88</b>	<b>%</b>
<b>Xylene (total)</b>	<b>83</b>	<b>%</b>

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not requested. NS= Not spiked.  
t= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. \*= Outside of EPA CLP QC

000006

WATER

GC-VOC

## SURROGATE RECOVERY (%) CONTROL LIMITS

COMPOUND	BLANKS, ES,ESD	WATER MS/MSD	SOILS MS/MSD
bromo-chloro-methane	60-130	60-140	40-130
aaa-trifluorotoluene	70-130	60-140	40-130



GC-VOA

BLANK SPIKE RECOVERIES ( method control limits )  
( METHOD : 602 )

COMPOUND	QC limits (ppb)	QC limits (%)
trans-1,2-dichloroethene	12.8 - 27.2	64.0 - 136.0
bromoform	14.7 - 25.3	73.5 - 126.5
1,1,2,2-tetrachloroethane	9.8 - 30.2	49.0 - 151.0
1,2-dichloroethane	14.3 - 25.7	71.5 - 128.5
bromodichloromethane	15.2 - 24.8	76.0 - 124.0
trans-1,3-dichloropropene	12.8 - 27.2	64.0 - 136.0
cis-1,3-dichloropropene	12.8 - 27.2	64.0 - 136.0
benzene	15.4 - 24.6	77.0 - 123.0
toluene	15.5 - 24.5	77.5 - 122.5
ethylbenzene	12.6 - 27.4	63.0 - 137.0
1,1,1-trichloroethane	14.2 - 25.8	71.0 - 129.0

Report Date: 01/14/93 16:22:06  
 GC VOA Statistical Evaluations of QA/QC Data

0 0 0 0 0

Report Date: 01/14/93 16:22:06

Matrix = SOIL	Blank Spike				Blank Spike				Matrix Spike				MSD	
Parameter	U.C.	L.C.	U.W.	L.W.	RPD +/-	U.L.	L.L.	U.W.	L.W.	RPD +/-	U.L.	L.L.	RPD +/-	
1,1,1-TRICHLOROETHANE	142.1	70.0	130.1	82.0	22.2	118.0	41.9	105.3	54.6	28.0	—	—	—	
1,1,1-TRICHLOROETHANE	—	—	—	—	22.2	—	—	—	—	—	—	—	—	
1,1,1-TRICHLOROETHANE	142.1	70.0	130.1	82.0	22.2	118.0	41.9	105.3	54.6	28.0	—	—	—	
1,1,2,2-TETRACHLOROETHANE	236.3	7.6	198.2	45.7	29.0	228.8	0.0	100.7	0.0	42.6	—	—	—	
1,1-DICHLOROETHENE	189.1	11.9	159.6	41.4	0.0	201.8	0.0	147.4	0.0	0.0	—	—	—	
1,2-DICHLOROETHANE	142.0	70.9	130.2	82.8	29.2	134.2	19.5	115.1	38.6	35.1	—	—	—	
BENZENE	149.5	32.6	130.0	52.0	9.3	132.5	5.1	111.2	26.3	29.5	—	—	—	
BROMODICHLOROMETHANE	138.7	70.3	127.3	81.7	15.2	128.9	8.3	108.8	28.4	40.9	—	—	—	
BROMOFORM	148.9	45.8	131.7	63.0	24.4	132.1	0.0	106.9	6.0	107.6	—	—	—	
CHLOROBENZENE	132.3	57.3	119.8	69.8	0.0	123.4	31.8	108.1	47.0	0.0	—	—	—	
CIS-1,3-DICHLOROPROPENE	153.3	54.0	136.7	70.6	28.0	132.6	0.2	110.5	22.2	51.9	—	—	—	
ETHYLBENZENE	149.0	26.7	128.6	47.1	8.7	129.5	0.0	106.5	14.3	47.9	—	—	—	
TETRACHLOROETHENE	237.3	0.0	193.9	20.4	0.0	0.0	0.0	0.0	0.0	0.0	—	—	—	
TOLUENE	147.2	31.3	127.9	50.6	9.6	136.8	0.0	112.4	14.8	38.6	—	—	—	
TRANS-1,2-DICHLOROETHENE	156.9	59.1	140.6	75.4	20.9	140.1	13.0	118.9	34.2	61.0	—	—	—	
TRANS-1,3-DICHLOROPROPENE	146.9	48.9	130.5	65.2	37.3	115.5	2.8	96.7	21.6	47.1	—	—	—	
TRICHLOROETHENE	198.5	16.6	166.5	46.6	0.0	0.0	0.0	0.0	0.0	0.0	—	—	—	
XYLENES (TOTAL)	153.4	0.0	127.1	21.9	9.3	121.6	0.0	98.2	4.8	78.2	—	—	—	

**Matrix = SOIL**

Parameter	Blank Surrogate				Matrix Surrogate			
	U.C.	L.C.	U.W.	L.W.	U.C.	L.C.	U.W.	L.W.
1-CHLORO-2-BROMOPROPANE	—	—	—	—	—	—	—	—
BROMOCHLOROMETHANE	147.1	46.4	130.3	63.2	113.1	35.9	100.3	46.8
FLUOROBENZENE	—	—	—	—	—	—	—	—
aa-TRIFLUOROTOLUENE	141.0	40.9	124.3	57.6	162.6	0.0	152.2	30.3

0006009



**CASE NARRATIVE**



ROY F. WESTON, INC.  
LIONVILLE ANALYTICAL LABORATORY  
ANALYTICAL CASE NARRATIVE

Client: LE CARPENTER  
RFW #: 9301L306

W.O. #: 06720-002-015-0300-00  
Date Received: 01-15-93

**GC VOLATILE**

The set of samples consisted of five (5) water samples collected on 01-14-93.

The samples were analyzed according to criteria set forth in Method 602 for Selected Halogenated Volatile Organic target compounds on 01-26,27-93.

The following is a summary of the QC results accompanying the sample results and a description of any problems encountered during their analyses:

1. All surrogate recoveries were within laboratory control limits.
2. All blank spike recoveries were within method control limits.
3. All matrix spike recoveries were within laboratory control limits.
4. Sample MW-22 required a 100-fold dilution because it contained high levels of target compounds.

J. Peter Hershey, Ph.D.  
Laboratory Manager  
Lionville Analytical Laboratory

02-12-93

Date

**WESTEN**GLOSSARY OF GC VOC DATADATA QUALIFIERS

- U = Compound was analyzed for but not detected. The associated numerical value is the estimated sample quantitation limit which is included and corrected for dilution and percent moisture.
- J = Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero; for example, if the limit of detection is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as J.
- B = This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination. This flag is also used for a TIC as well as for a positively identified TCL compound.
- E = Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.
- I = Interference.
- N = Not Confirmed.
- Y = Confirmed Positive.

ABBREVIATIONS

- BS = Indicates blank spike in which reagent grade water is spiked with the CIP matrix spiking solutions and carried through all the steps in the method. Spike recoveries are reported.
- BSD = Indicates blank spike duplicate.
- MS = Indicates matrix spike.
- MSD = Indicates matrix spike duplicate.
- DL = Indicates that surrogate recoveries were not obtained because the extract had to be diluted for analysis.
- NA = Not applicable.
- DF = Dilution factor.
- NR = Not required.

0000012

**SAMPLE DATA**  
in increasing RFW# order

000013

CLIENT SAMPLE NO.

## GC VOLATILES SHEET

MW-4

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0300Client: LE CARPENTERMatrix: WATERLab Sample ID: 9301L306-001Sample wt/vol: 5.00 (g/mL) MLLab File ID: AQ354730Level: (low/med) LOWDate Received: 01/15/93

% Moisture: not dec.

Date Analyzed: 01/26/93Column: (pack/cap) PACKDilution Factor: 1.00

## CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L

71-43-2-----	Benzene	1.0	U
100-41-4-----	Ethylbenzene	3.0	
108-88-3-----	Toluene	1.0	U
1330-20-7-----	Xylene (total)	5.8	

12/88 Rev.

9/14/93

9301L306-001

SAMPLE NO.: 01269316 .09

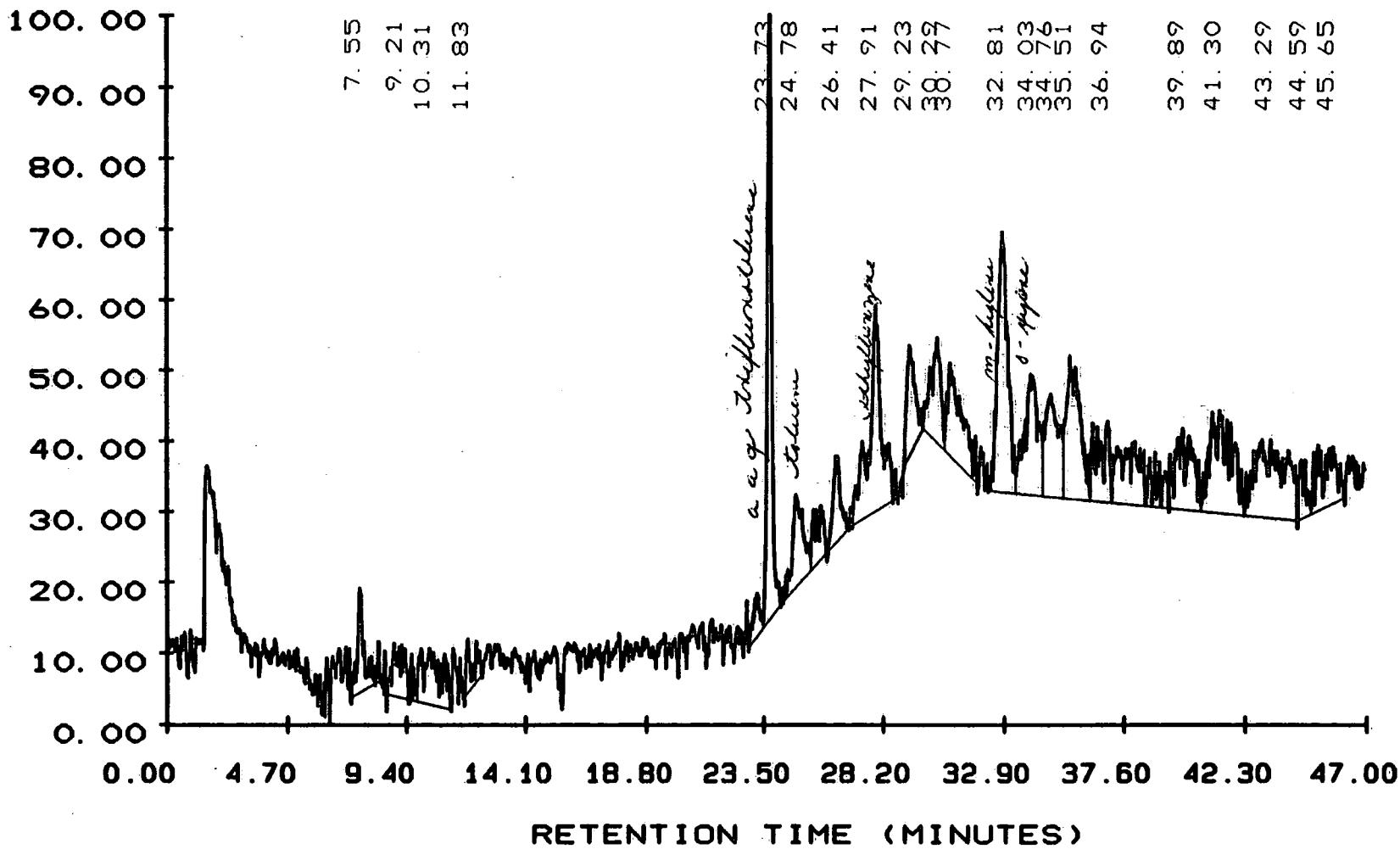
TEST NO.:

METHOD NO.: 16B / 16B

INSTRUMENT: 16

DATE TIME: 01/26/93 18:50:04

PAGE NO.: 01



0000015

Roy F. Weston, Inc. - Lionville Laboratory

01/27/93 09:19:29

## MULTILEVEL EXTERNAL STANDARD

SAMPLE: 01269316 .09  
 TEST : O602X  
 COLLECTION TIME : 46.94  
 METHOD: 16B / 16B REV #: 00049 ANALYST: LINDAD SAMP RATE: 1.56  
 CLIENT ID: MW-4  
 CLIENT: LE CARPENTER  
 LAB ID: 9301L306-001  
 SAMPLE WT : % MOISTURE :  
 INST:16 VIAL:FO SEQ NUMBER:009  
 DATE-TIME INJECTED : 01/26/93 18:50:04  
 DATE-TIME PROCESSED : 01/27/93 09:19:29  
 SAMPLE VOL: 5.0 ML  
 COLUMN TYPE: 1% SP1000, PI  
 RAW FILE: RAW3:AQ354730  
 DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL RT MINUTES	GR #	COMPONENT NAME	AREA CONC	PPB
001	10790	552		7.547			
002	10771	278	T	9.213			
003	15923	297	V	10.314			
004	5126	287		11.832 M TRANS-1,2-DICHLOROET			
				18.010 M BENZENE			
005	44032	3282	V	23.732 M a,a,a-TRIFLUOROTOLUE	12.589		
006	15104	504	T	24.784 M TOLUENE	2.032	< D.L. against lowest	
007	17075	465	V	26.408		std. 400	
008	37504	1120		27.909 M ETHYLBENZENE	2.969	2/9/93	
009	12915	604	V	29.230			
010	14810	562	T	30.285			
011	20435	503	V	30.773			
012	40339	1401	T	32.808 M M-XYLENE	3.907		
013	24954	650	T	34.034 M O-XYLENE	1.843	5.75	
014	20659	558	T	34.764			
015	28755	751	T	35.512			
016	41261	433	T	36.940			
017	19693	443	T	39.894			
018	32365	556	T	41.297			
019	34605	422	V	43.287			
020	5453	315	T	44.590			
021	15117	308		45.655			

3.907  
1.8435.75  
2/1/93

0000018

CLIENT SAMPLE NO.

## GC VOLATILES SHEET

MW-4RE

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0300Client: LE CARPENTERMatrix: WATERLab Sample ID: 9301L306-001Sample wt/vol: 5.00 (g/mL) MLLab File ID: AR355079Level: (low/med) LOWDate Received: 01/15/93% Moisture: not dec.       Date Analyzed: 01/27/93Column: (pack/cap) PACKDilution Factor: 1.00

## CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L

71-43-2-----Benzene	1.0	U
100-41-4-----Ethylbenzene	3.9	U
108-88-3-----Toluene	1.0	U
1330-20-7-----Xylene (total)	6.0	U

12/88 Rev.

GLW  
3/9/93

9301L306-001

SAMPLE NO.: 01279316 .04

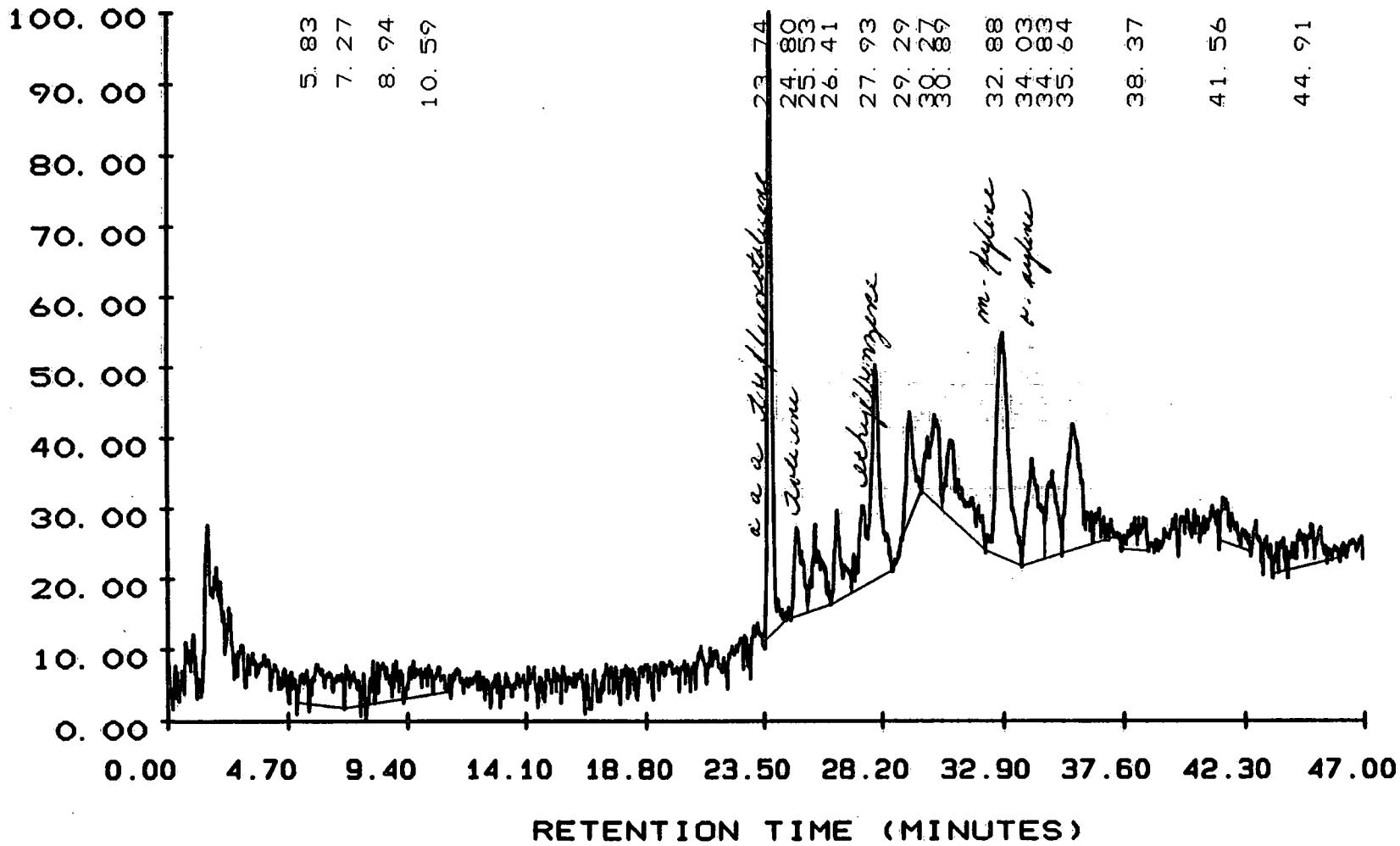
TEST NO.:

METHOD NO.: 16B / 16B

INSTRUMENT: 16

DATE TIME: 01/27/93 14:19:15

PAGE NO.: 01



0000018

Roy F. Weston, Inc. - Lionville Laboratory

01/27/93 15:06:56

## MULTILEVEL EXTERNAL STANDARD

SAMPLE: 01279316 .04

INST:16 VIAL:FO SEQ NUMBER:004

TEST : O602X

DATE-TIME INJECTED : 01/27/93 14:19:15

COLLECTION TIME : 46.94

DATE-TIME PROCESSED : 01/27/93 15:06:56

METHOD: 16B / 16B REV #: 00049

ANALYST: LINDAD SAMP RATE: 1.56

CLIENT ID: MW-4

SAMPLE VOL: 5.0 ML

CLIENT: LE CARPENTER

COLUMN TYPE: 1% SP1000, PI

LAB ID: 9301L306-001

RAW FILE: RAW3:AR355079

SAMPLE WT :

% MOISTURE :

DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL RT MINUTES	GR COMPONENT #	NAME	AREA CONC PPB
001	18381	258	V	5.829		
002	6906	214	T	7.268		
003	12781	248	T	8.944		
004	12013	165		10.588		
				11.850 M TRANS-1,2-DICHLOROET		
				18.010 M BENZENE		
005	47930	3978	V	23.742 M a,a,a-TRIFLUOROTOLUE	13.865	
006	12467	564	T	24.798 M TOLUENE	1.726	< D.L. against lowest
007	13747	551	V	25.526		Std. Mad 2/9/93
008	11584	570	T	26.406		
009	44467	1374		27.934 M ETHYLBENZENE	3.873	
010	13101	669	V	29.292		
011	16294	557	T	30.274		
012	23238	497	V	30.889		
013	46522	1434	V	32.883 M M-XYLENE	4.664	{ 5.071
014	21395	661	T	34.029 M O-XYLENE	1.307	
015	14528	539	T	34.834		
016	35181	805		35.638		
017	7386	212		38.365		
018	9798	268		41.556		
019	18528	252		44.912		

9:05  
2/19/93

0000019

CLIENT SAMPLE NO.

## GC VOLATILES SHEET

MW-14S

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0300Client: LE CARPENTERMatrix: WATERLab Sample ID: 9301L306-002Sample wt/vol: 5.00 (g/mL) MLLab File ID: AQ354683Level: (low/med) LOWDate Received: 01/15/93

% Moisture: not dec.

Date Analyzed: 01/26/93Column: (pack/cap) PACKDilution Factor: 1.00

## CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

71-43-2-----Benzene	1.0	U
100-41-4-----Ethylbenzene	1.0	U
108-88-3-----Toluene	1.0	U
1330-20-7-----Xylene (total)	2.0	U

12/88 Rev.

JULY  
21/93

9301L306-002

SAMPLE NO.: 01269316 .06

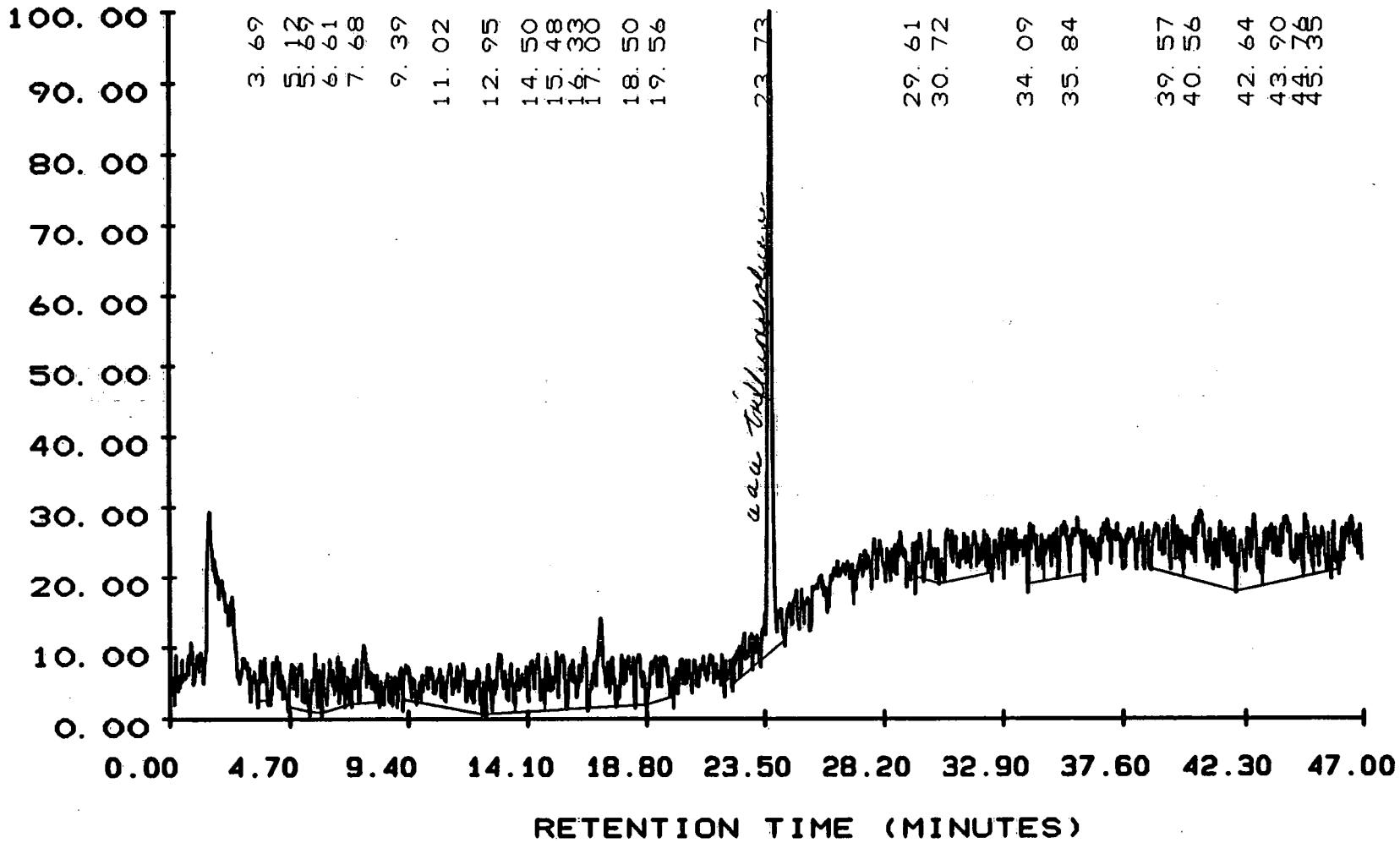
TEST NO.:

METHOD NO.: 16 / 16

INSTRUMENT: 16

DATE TIME: 01/26/93 16:06:12

PAGE NO.: 01



Y MAXIMUM: 50584.

Y MINIMUM: 50080.

START TIME: 0.00

END TIME: 47.00

0000021

Roy F. Weston, Inc. - Lionville Laboratory

01/27/93 09:16:36

## MULTILEVEL EXTERNAL STANDARD

SAMPLE: 01269316 .06 INST:16 VIAL:FO SEQ NUMBER:006  
TEST : O602X DATE-TIME INJECTED : 01/26/93 16:06:12  
COLLECTION TIME : 46.94 DATE-TIME PROCESSED : 01/27/93 09:16:36  
METHOD: 16 / 16B REV #: 00049 ANALYST: LINDAD SAMP RATE: 1.56  
CLIENT ID: MW-14S SAMPLE VOL: 5.0 ML  
CLIENT: LE CARPENTER COLUMN TYPE: 1% SP1000, PI  
LAB ID: 9301L306-002 RAW FILE: RAW3:AQ354683  
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL MINUTES	RT #	GR COMPONENT NAME	AREA CONC PPB
001	3718	286		3.692		
002	9069	322	V	5.118		
003	5274	392	V	5.690		
004	12294	363	V	6.609		
005	12787	393		7.679		
006	5440	237	T	9.390		
007	26637	302	V	11.017		
				11.850 M TRANS-1,2-DICHLOROET		
008	16339	406	T	12.950		
009	15789	373	T	14.496		
010	13171	384	T	15.481		
011	12224	421	T	16.334		
012	17376	631	T	17.003		
				18.010 M BENZENE		
013	15206	355	V	18.501		
014	12230	289		19.556		
015	67130	4582		23.731 M a,a,a-TRIFLUOROTOLUE	20.151	
				24.500 M TOLUENE		
				27.930 M ETHYLBENZENE		
016	9408	316	V	29.613		
017	23462	368		30.718		
				32.820 M M-XYLENE		
018	9389	401	T	34.094 M O-XYLENE		
019	24845	404		35.843		
020	17651	409	T	39.574		
021	35968	506	V	40.564		
022	16608	518	T	42.637		
023	27590	455	T	43.901		
024	6195	375	T	44.763		
025	9888	314		45.355		

0000022

CLIENT SAMPLE NO.

## GC VOLATILES SHEET

MW-22

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0300Client: LE CARPENTERMatrix: WATER Lab Sample ID: 9301L306-003Sample wt/vol: 5.00 (g/mL) ML Lab File ID: AQ354698Level: (low/med) LOW Date Received: 01/15/93% Moisture: not dec. Date Analyzed: 01/26/93Column: (pack/cap) PACK Dilution Factor: 1.00

## CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L

71-43-2-----Benzene	1.0	U
100-41-4-----Ethylbenzene		E
108-88-3-----Toluene	1.0	U
1330-20-7-----Xylene (total)		E

12/88 Rev.

JWt  
1/19/93

9301L306-003

SAMPLE NO. : 01269316 .07

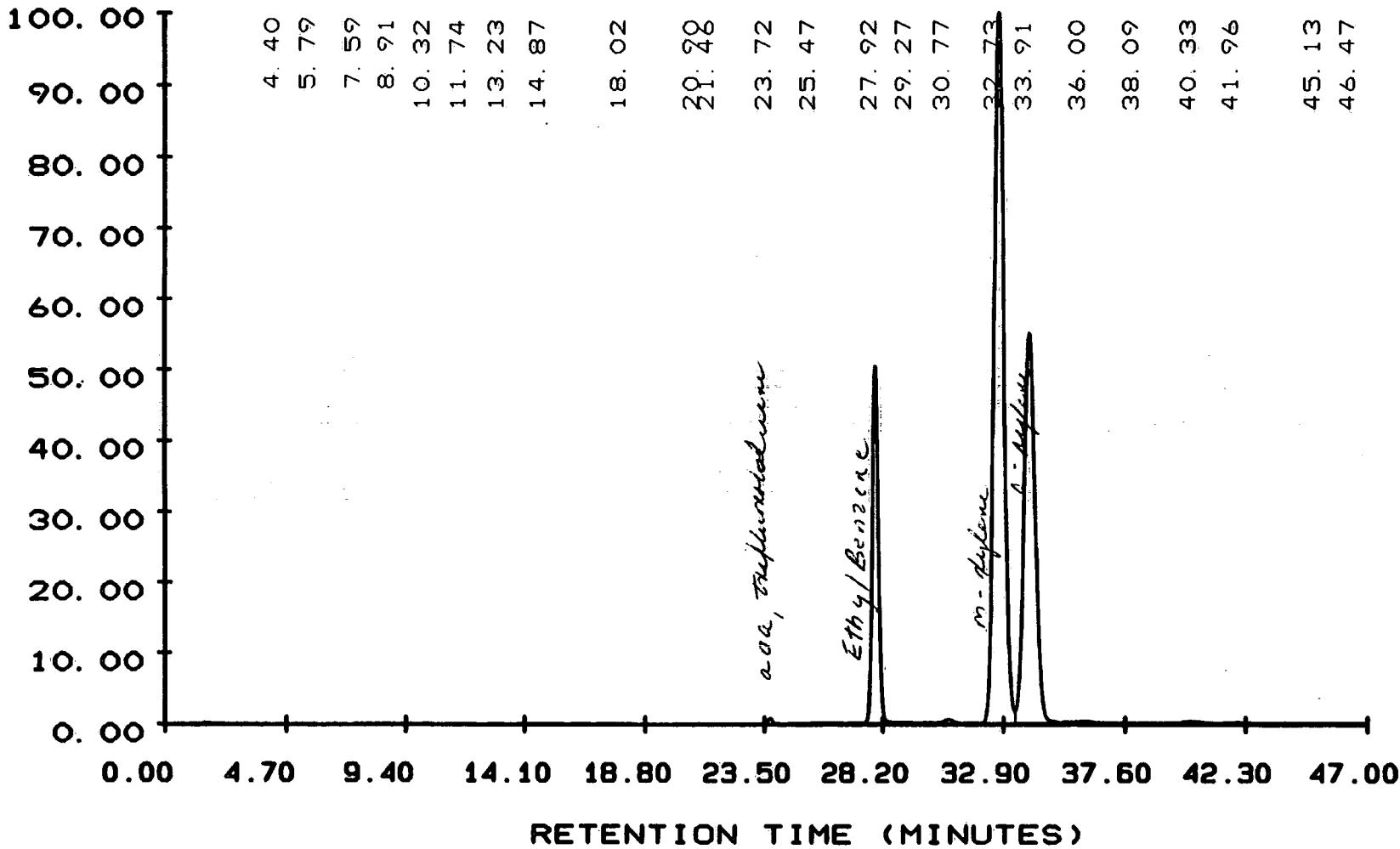
TEST NO. :

METHOD NO. : 16B / 16B

INSTRUMENT: 16

DATE TIME: 01/26/93 17:00:54

PAGE NO. : 01



Y MAXIMUM: 103552.

Y MINIMUM: 50059.

START TIME: 0.00

END TIME: 47.00

0000024

Roy F. Weston, Inc. - Lionville Laboratory

01/27/93 09:17:38

## MULTILEVEL EXTERNAL STANDARD

SAMPLE: 01269316 .07  
 TEST : 0602X  
 COLLECTION TIME : 46.94  
 METHOD: 16B / 16B REV #: 00049 ANALYST: LINDAD SAMP RATE: 1.56  
 CLIENT ID: MW-22 SAMPLE VOL: 5.0 ML  
 CLIENT: LE CARPENTER COLUMN TYPE: 1% SP1000, PI  
 LAB ID: 9301L306-003 RAW FILE: RAW3:AQ354698  
 SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL RT MINUTES	GR #	COMPONENT NAME	AREA	CONC	PPB
001	5606	314	V	4.405				
002	14349	324	V	5.789				
003	22381	492	T	7.594				
004	20058	344	T	8.910				
005	13702	312	V	10.318				
006	19014	340	T	11.739	M TRANS-1,2-DICHLOROET	1.639		
007	11661	320	V	13.234				
008	22246	329		14.871				
009	11347	357		18.020	M BENZENE	0.126		
010	11098	403	V	20.898				
011	10426	218	V	21.463				
012	58022	4323	V	23.723	M a,a,a-TRIFLUOROTOLUE	17.169		
				24.500	M TOLUENE			
013	35635	810	T	25.470				
014	4470407	268845		27.921	M ETHYLEBENZENE	578.360	E	
015	5562	361	V	29.274				
016	77491	2488	V	30.771				
017	13870925	533711	T	32.733	M M-XYLENE	1.695E+3		
018	8828743	293890	T	33.914	M O-XYLENE	1.328E+3	E	
019	112595	1587	T	35.997				
020	25030	552	T	38.087				
021	101344	1536	T	40.334				
022	71744	1099	V	41.962				
023	34963	438	V	45.125				
024	4518	329		46.468				

 flat  
 2/19/93

0100025

CLIENT SAMPLE NO.

## GC VOLATILES SHEET

MW-22DL

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0300Client: LE CARPENTERMatrix: WATERLab Sample ID: 9301L306-003 DLSample wt/vol: 5.00 (g/mL) MLLab File ID: AR355095Level: (low/med) LOWDate Received: 01/15/93% Moisture: not dec.       Date Analyzed: 01/27/93Column: (pack/cap) PACKDilution Factor: 100

## CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

71-43-2-----Benzene	NA	
100-41-4-----Ethylbenzene	470	
108-88-3-----Toluene	NA	
1330-20-7-----Xylene (total)	2600	

12/88 Rev.

904  
2/19/93

9301L306-003

SAMPLE NO. : 01279316 .05

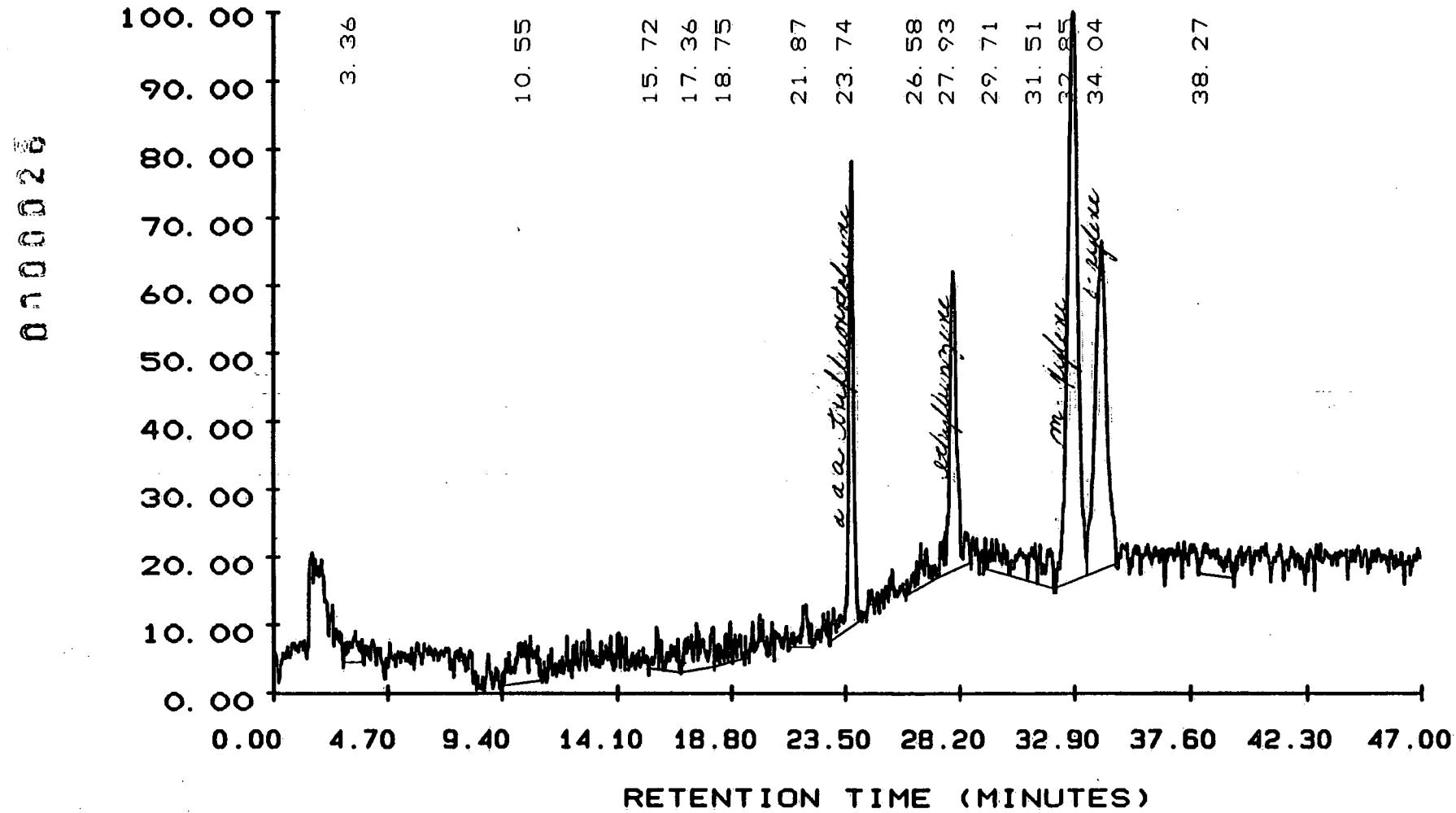
TEST NO. :

METHOD NO. : 16B / 16B

INSTRUMENT: 16

DATE TIME: 01/27/93 15:13:54

PAGE NO. : 01



RETENTION TIME (MINUTES)

Y MAXIMUM: 50615.

Y MINIMUM: 50075.

START TIME: 0.00

END TIME: 47.00

0000027

Roy F. Weston, Inc. - Lionville Laboratory

01/27/93 16:01:25

## MULTILEVEL EXTERNAL STANDARD

SAMPLE: 01279316 .05  
 TEST : 0602X  
 COLLECTION TIME : 46.94  
 METHOD: 16B / 16B REV #: 00049 ANALYST: LINDAD SAMP RATE: 1.56  
 CLIENT ID: MW-22 SAMPLE VOL: 5.0 ML  
 CLIENT: LE CARPENTER COLUMN TYPE: 1% SP1000, PI  
 LAB ID: 9301L306-003 RAW FILE: RAW3:AR355095  
 SAMPLE WT : % MOISTURE : DILUTION FACTOR :100.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL RT MINUTES	GR #	COMPONENT NAME	AREA CONC	PPB
001	6400	221		3.361			
002	18253	340		10.549			
				11.850 M TRANS-1,2-DICHLOROET			
003	9619	323	V	15.720			
004	14701	357	V	17.363			
				18.010 M BENZENE			
005	8531	308		18.754			
006	7162	328	V	21.867			
007	50259	3704		23.743 M a,a,a-TRIFLUOROTOLUE 1.463E+3 / 1CC = 14.63			
				24.500 M TOLUENE			
008	9171	325	V	26.579			
009	50899	2336		27.933 M ETHYLBENZENE	470.769 ✓		
010	8992	248	V	29.707			
011	19558	320	V	31.505			
012	130035	4515	T	32.853 M M-XYLENE	1.488E+3	2590	
013	86438	2619		34.039 M O-XYLENE	1.110E+3	2590	
014	12454	233		38.272			

*JFB*  
*2/19/93*

000028

CLIENT SAMPLE NO.

## GC VOLATILES SHEET

MW-25

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0300Client: LE CARPENTERMatrix: WATER Lab Sample ID: 9301L306-004Sample wt/vol: 5.00 (g/mL) ML Lab File ID: AR355054Level: (low/med) LOW Date Received: 01/15/93% Moisture: not dec. Date Analyzed: 01/27/93Column: (pack/cap) PACK Dilution Factor: 1.00

## CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L

71-43-2-----	Benzene	1.0	u
100-41-4-----	Ethylbenzene	1.0	u
108-88-3-----	Toluene	1.0	u
1330-20-7-----	Xylene (total)	2.0	u

12/88 Rev.

GC  
2/1/13

9301L306-004

SAMPLE NO. : 01279316

.03

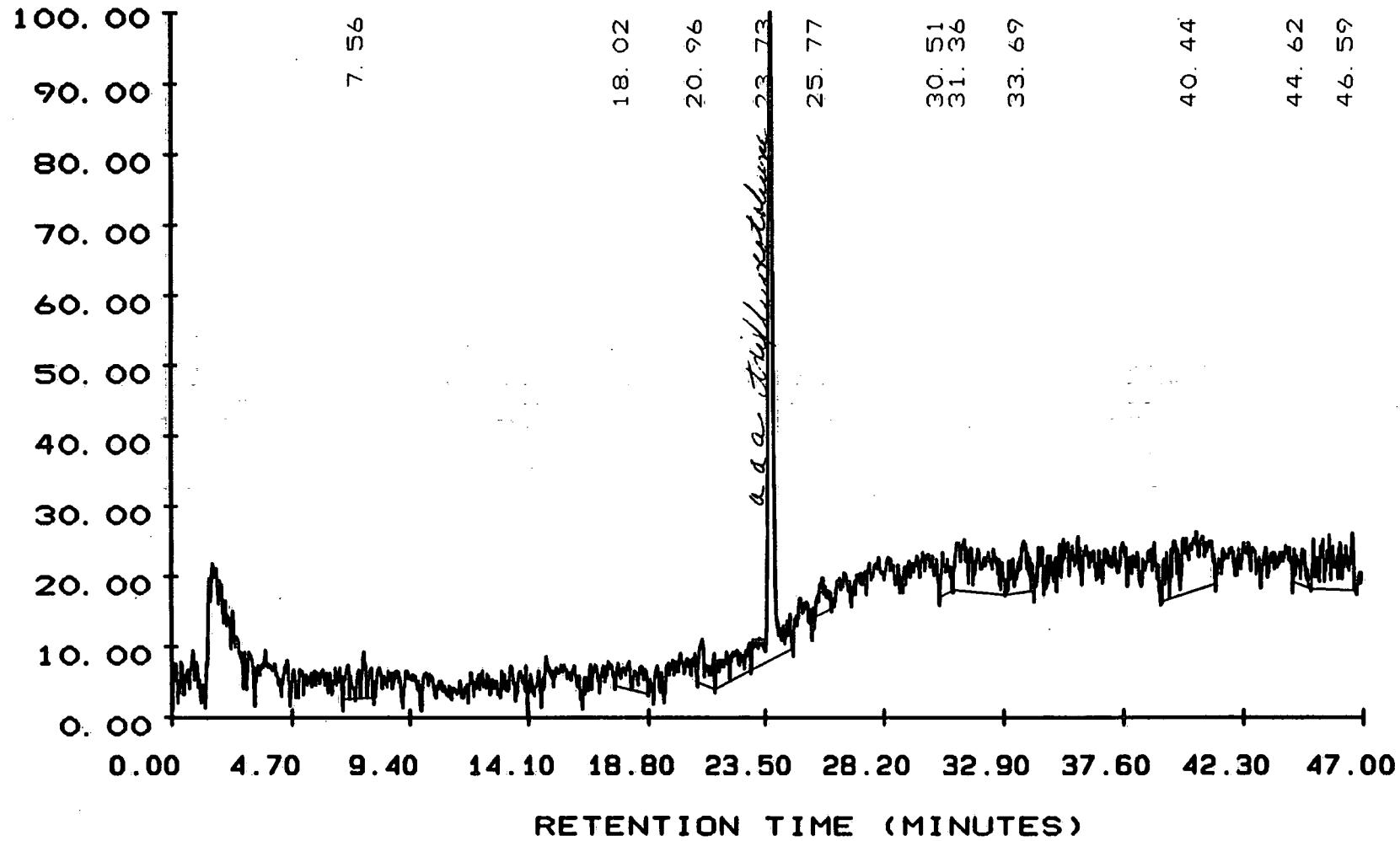
INSTRUMENT: 16

TEST NO. :

DATE TIME: 01/27/93 13:24:36

METHOD NO. : 16B / 16B

PAGE NO. : 01



Y MAXIMUM: 50519.

START TIME: 0.00

Y MINIMUM: 50075.

END TIME: 47.00

0200030

Roy F. Weston, Inc. - Lionville Laboratory

01/27/93 14:12:06

## MULTILEVEL EXTERNAL STANDARD

SAMPLE: 01279316 .03 INST:16 VIAL:FO SEQ NUMBER:003  
 TEST : 0602X DATE-TIME INJECTED : 01/27/93 13:24:36  
 COLLECTION TIME : 46.94 DATE-TIME PROCESSED : 01/27/93 14:12:06  
 METHOD: 16B / 16B REV #: 00049 ANALYST: LINDAD SAMP RATE: 1.56  
 CLIENT ID: MW-25 SAMPLE VOL: 5.0 ML  
 CLIENT: LE CARPENTER COLUMN TYPE: 1% SP1000, PI  
 LAB ID: 9301L306-004 RAW FILE: RAW3:AR355054  
 SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL RT	GR MINUTES #	COMPONENT NAME	AREA CONC	PPB
001	8902	289		7.556			
					11.850 M TRANS-1,2-DICHLOROET		
002	7795	161			18.020 M BENZENE		
003	6144	272	V	20.962			
004	69581	4086			23.734 M a,a,a-TRIFLUOROTOLUE 20.954		
					24.500 M TOLUENE		
005	4666	219		25.769			
					27.930 M ETHYLBENZENE		
006	4518	274	V	30.512			
007	24403	317	V	31.361			
					32.820 M M-XYLENE		
008	10534	319		33.688 M O-XYLENE			
009	30630	339		40.444			
010	5107	216	V	44.620			
011	19334	358		46.589			

GLC 2/9/93

0000031

CLIENT SAMPLE NO.

## GC VOLATILES SHEET

TB-1

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0300Client: LE CARPENTERMatrix: WATERLab Sample ID: 9301L306-006Sample wt/vol: 5.00 (g/mL) MLLab File ID: AQ354670Level: (low/med) LOWDate Received: 01/15/93% Moisture: not dec.       Date Analyzed: 01/26/93Column: (pack/cap) PACKDilution Factor: 1.00

## CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

71-43-2-----	Benzene	1.0	U
100-41-4-----	Ethylbenzene	1.0	U
108-88-3-----	Toluene	1.0	U
1330-20-7-----	Xylene (total)	2.0	U

12/88 Rev.

*glut  
2/1/93*

9301L306-006

SAMPLE NO. : 01269316 .05

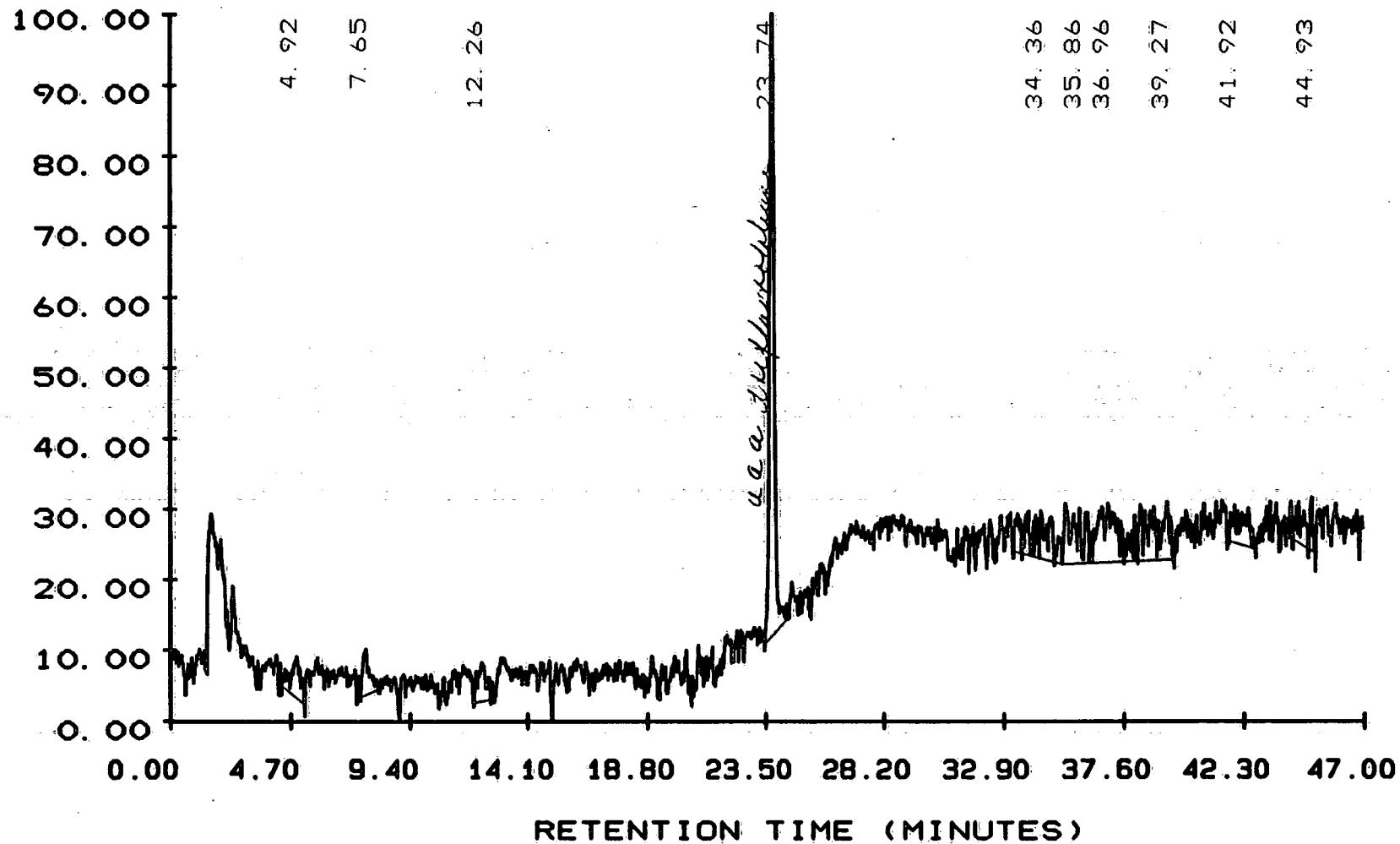
TEST NO. :

METHOD NO. : 16 / 16

INSTRUMENT: 16

DATE TIME: 01/26/93 15:11:29

PAGE NO. : 01



Y MAXIMUM: 50528.

Y MINIMUM: 50057.

START TIME: 0.00

END TIME: 47.00

0 2000033

Roy F. Weston, Inc. - Lionville Laboratory

01/27/93 09:15:35

## MULTILEVEL EXTERNAL STANDARD

SAMPLE: 01269316 .05 INST:16 VIAL:FO SEQ NUMBER:005  
TEST : O602X DATE-TIME INJECTED : 01/26/93 15:11:29  
COLLECTION TIME : 46.94 DATE-TIME PROCESSED : 01/27/93 09:15:35  
METHOD: 16 / 16B REV #: 00049 ANALYST: LINDAD SAMP RATE: 1.56  
CLIENT ID: TB-1 SAMPLE VOL: 5.0 ML  
CLIENT: LE CARPENTER COLUMN TYPE: 1% SP1000, PI  
LAB ID: 9301L306-006 RAW FILE: RAW3:AQ354670  
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL MINUTES	RT #	GR NAME	COMPONENT	AREA CONC PPB
001	7002	265		4.920			
002	5766	299		7.649			
				11.850	M	TRANS-1,2-DICHLOROET	
003	5952	251		12.256			
				18.010	M	BENZENE	
004	52243	4151		23.742	M	a,a,a-TRIFLUOROTOLUE	15.277
				24.500	M	TOLUENE	
				27.930	M	ETHYLBENZENE	
				32.820	M	M-XYLENE	
005	18189	318	V	34.361	M	O-XYLENE	0.824
006	15322	366	T	35.859			
007	18150	391	T	36.965			
008	23232	376		39.272			
009	8883	245		41.917			
010	7533	354		44.933			

964  
2/9/93

000034

WESTON

**STANDARD DATA**

0000035

Roy F. Weston, Inc. - Lionville Laboratory

METHOD NUMBER	:	16B
METHOD TITLE	:	5.0 ML, 1% SP1000,
USER PROGRAMS	:	USER:MULTIV10
ORDER OF FIT	:	1
NUMBER OF LEVELS	:	10
REPORT PARAMETERS	:	
NO.OF TIMES MODIFIED	:	3
NO.OF TIMES CALIBRAT	:	3

#	COMPONENT NAME	LEVEL A LEVEL F	LEVEL B LEVEL G	LEVEL C LEVEL H	LEVEL D LEVEL I	LEVEL E LEVEL J
1	TRANS-1,2-DICHLOROET	0.2000 10.0000	0.5000 20.0000	1.0000 30.0000	2.0000 40.0000	5.0000 50.0000
2	BENZENE	0.2000 10.0000	0.5000 20.0000	1.0000 30.0000	2.0000 40.0000	5.0000 50.0000
3	a,a,a-TRIFLUOROTOLUE	0.2000 10.0000	0.5000 20.0000	1.0000 30.0000	2.0000 40.0000	5.0000 50.0000
4	TOLUENE	0.2000 10.0000	0.5000 20.0000	1.0000 30.0000	2.0000 40.0000	5.0000 50.0000
5	ETHYLBENZENE	0.2000 10.0000	0.5000 20.0000	1.0000 30.0000	2.0000 40.0000	5.0000 50.0000
6	M-XYLENE	0.1996 9.9840	0.4992 19.9680	0.9984 29.9520	1.9968 39.9360	4.9920 49.9200
7	O-XYLENE	0.2020 10.1000	0.5050 20.2000	1.0100 30.3000	2.0200 40.4000	5.0500 50.5000

0000036

MULTILEVEL CALIBRATION METHOD 16B            01/22/93 10:50:11  
 1ST ORDER EXTERNAL STANDARD            CALIBRATION USING PEAK AREA

## TEST:

LEVEL	REPLICATE 1	REPLICATE 2	REPLICATE 3
-------	-------------	-------------	-------------

A	
B	
C	01219316.03
D	
E	01219316.05
F	01209316.06
G	01209316.07
H	
I	01209316.08
J	

PEAK NAME	COEFFICIENTS			SD OF FIT	CORR COEFF
	a	b	c		
TRANS-1,2-DICHLOROET			1.319E-04-8.689E-01	0.66341	0.99863
BENZENE			1.126E-04-1.152E+00	0.36653	0.99958
a,a,a-TRIFLUOROTOLUE			3.274E-04-1.827E+00	1.24049	0.99524
TOLUENE			1.159E-04 2.810E-01	1.34418	0.99441
ETHYLBENZENE			1.298E-04-1.899E+00	1.24585	0.99520
M-XYLENE			1.223E-04-1.026E+00	1.04118	0.99663
O-XYLENE			1.506E-04-1.915E+00	1.28646	0.99498

ST1) B7 1PPB

SAMPLE NO.: 01219316

TEST NO. :

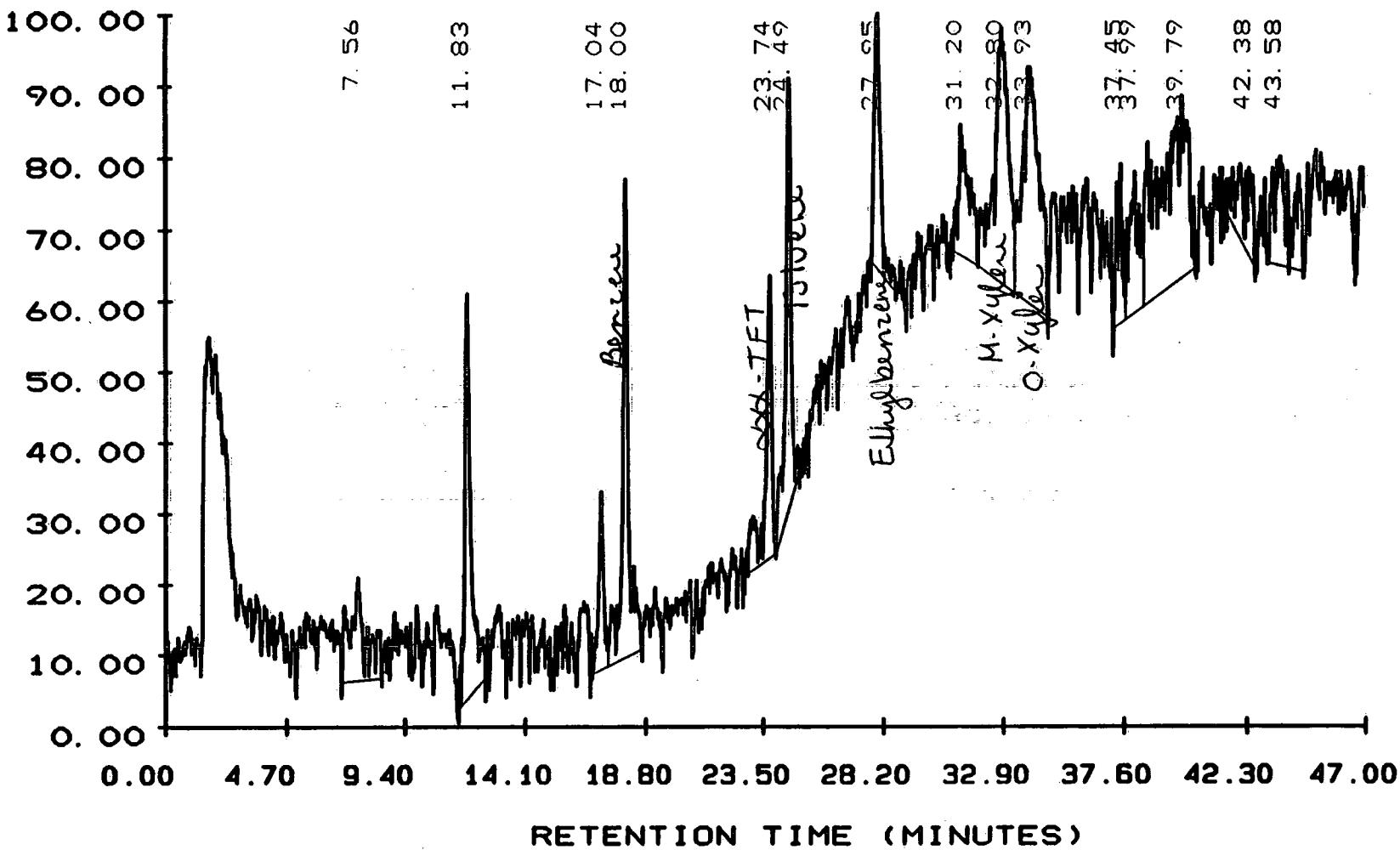
METHOD NO.: 16 / 16

.03

INSTRUMENT: 16

DATE TIME: 01/21/93 15:09:04

PAGE NO.: 01



Y MAXIMUM: 50281.  
Y MINIMUM: 50082.

START TIME: 0.00  
END TIME: 47.00

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Roy F. Weston, Inc. - Lionville Laboratory

01/22/93 10:59:51

## MULTILEVEL EXTERNAL STANDARD

SAMPLE: 01219316 .03 INST:16 VIAL:FO SEQ NUMBER:003  
TEST : DATE-TIME INJECTED : 01/21/93 15:09:04  
COLLECTION TIME : 46.94 DATE-TIME PROCESSED : 01/22/93 10:59:51  
METHOD: 16 / 16B REV #: 00049 ANALYST: LINDAD SAMP RATE: 1.56  
CLIENT ID: SAMPLE VOL: 5.0 ML  
CLIENT: COLUMN TYPE: 1% SP1000, PI  
LAB ID: RAW FILE: RAW3:AL353137  
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000

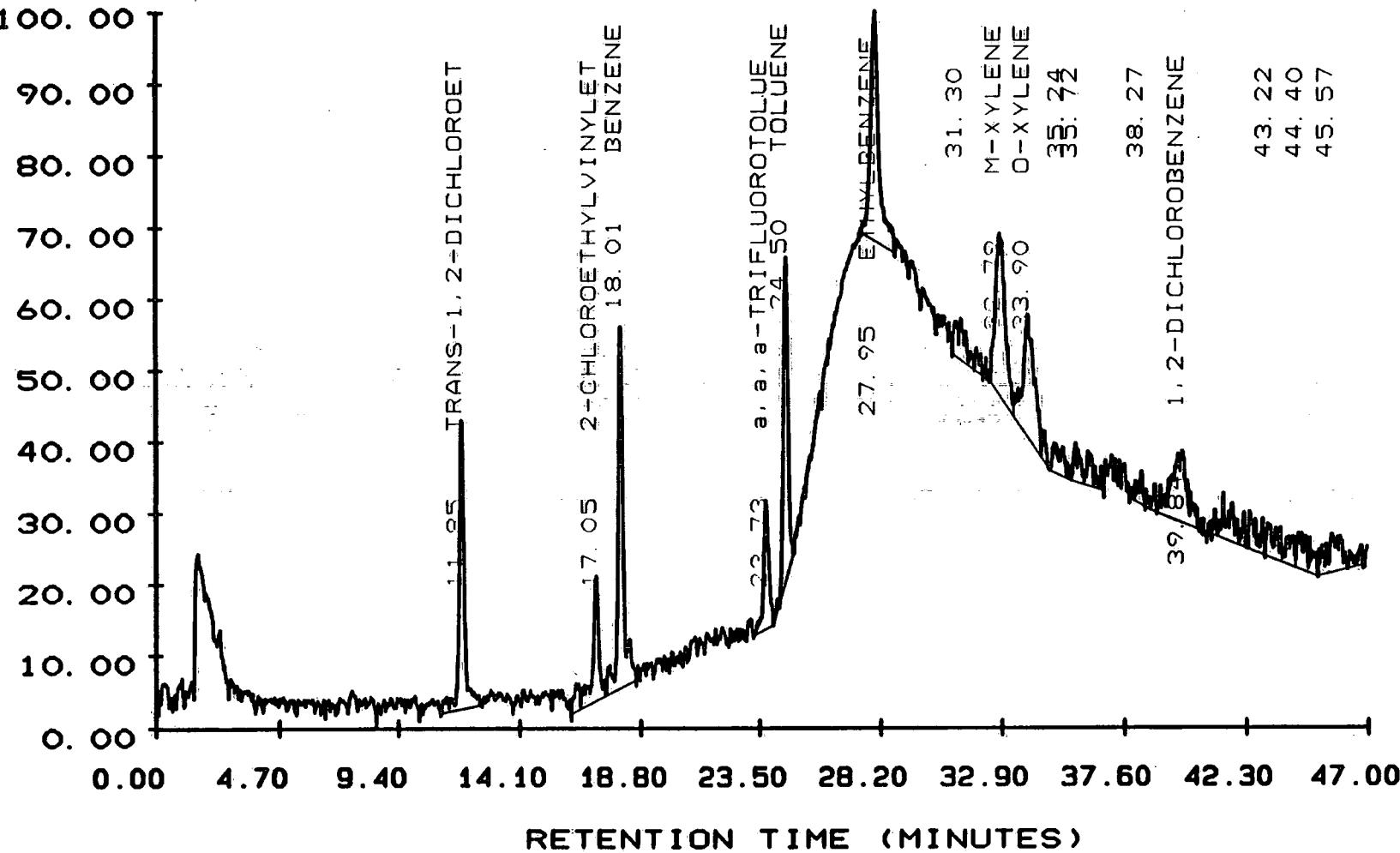
PK NO	PEAK AREA	PEAK HEIGHT	BL MINUTES	RT #	GR COMPONENT NAME	AREA CONC PPB
001	12646	284		7.563		
002	19296	1131		11.830	M TRANS-1,2-DICHLOROET	1.676
003	6906	503	T	17.035		
004	23258	1348		17.999	M BENZENE	1.467
005	13408	795	V	23.741	M a,a,a-TRIFLUOROTOLUE	2.563
006	18272	1205		24.487	M TOLUENE	2.399
007	11859	707		27.947	M ETHYLBENZENE	
008	10253	359	V	31.196		
009	28090	708	T	32.801	M M-XYLENE	2.409
010	30266	650		33.925	M O-XYLENE	2.643
011	6054	421	T	37.450		
012	10176	393	T	37.995		
013	38362	505		39.793		
014	8928	235	V	42.381		
015	14067	303		43.584		

## STD B7 5PPB

SAMPLE NO. : 01219316  
TEST NO. :  
METHOD NO. : 16 / 16

.05

INSTRUMENT: 16  
DATE TIME: 01/21/93 16:58:08  
PAGE NO. : 01



Y MAXIMUM: 50810.  
Y MINIMUM: 50071.

START TIME: 0.00  
END TIME: 47.00

0000040

Roy F. Weston, Inc. - Lionville Laboratory

01/22/93 11:00:31

## MULTILEVEL EXTERNAL STANDARD

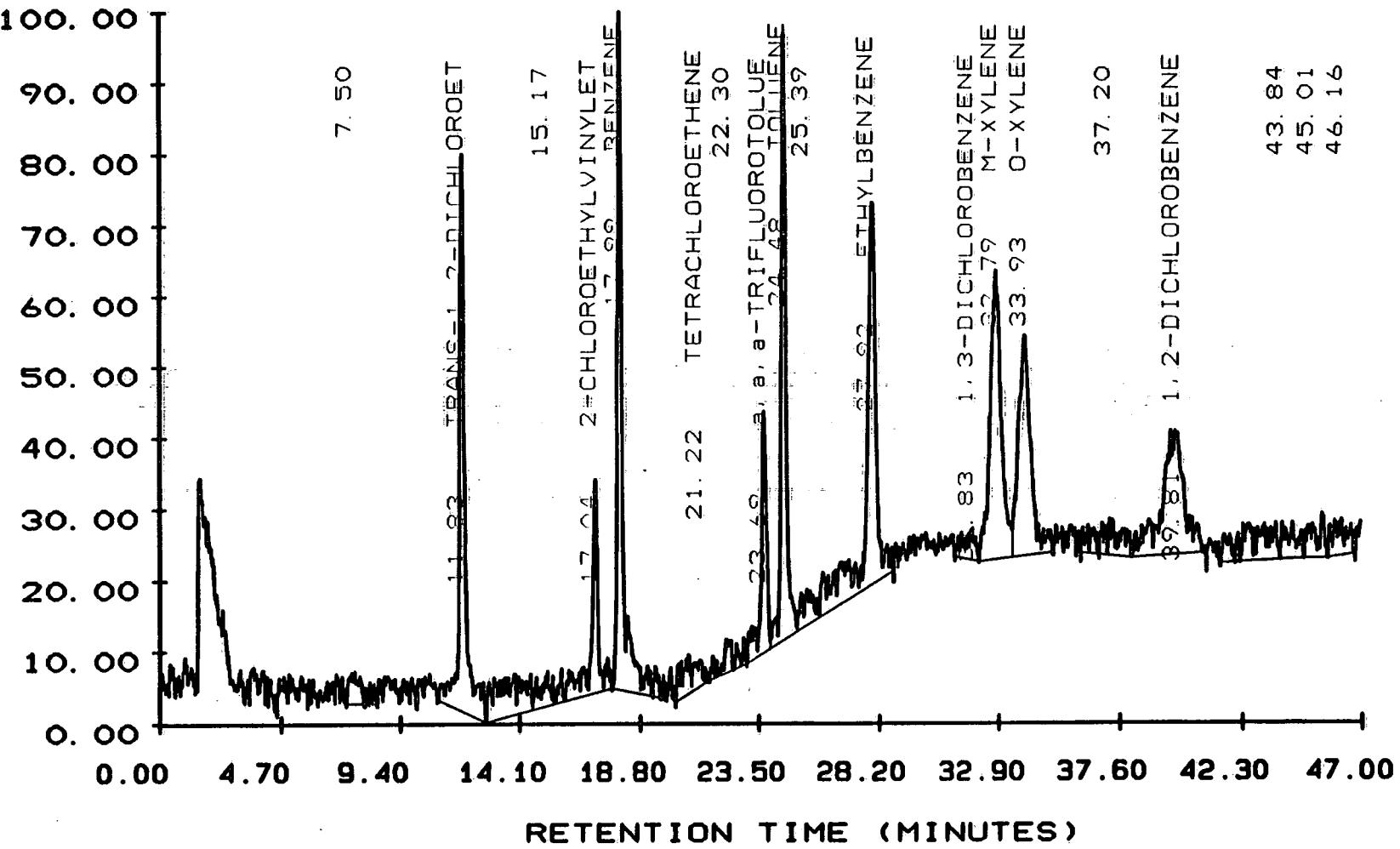
SAMPLE: 01219316 .05 INST:16 VIAL:FO SEQ NUMBER:005  
TEST : DATE-TIME INJECTED : 01/21/93 16:58:08  
COLLECTION TIME : 46.94 DATE-TIME PROCESSED : 01/22/93 11:00:31  
METHOD: 16 / 16B REV #: 00049 ANALYST: LINDAD SAMP RATE: 1.56  
CLIENT ID: SAMPLE VOL: 5.0 ML  
CLIENT: COLUMN TYPE: 1% SP1000, PI  
LAB ID: STD B7 5PPB RAW FILE: RAW3:AL353199  
SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL MINUTES	RT #	GR NAME	COMPONENT	AREA CONC PPB
001	41555	2986		11.850	M	TRANS-1,2-DICHLOROET	4.612
002	25235	1280	T	17.048			
003	52928	3744		18.010	M	BENZENE	4.808
004	18496	1338	V	23.728	M	a,a,a-TRIFLUOROTOLUE	4.229
005	41267	3336		24.502	M	TOLUENE	5.064
006	54170	2348		27.945	M	ETHYLBENZENE	5.132
007	15168	433	V	31.296			
008	44205	1680	T	32.795	M	M-XYLENE	4.380
009	40698	1279	V	33.901	M	O-XYLENE	4.214
010	8134	299	V	35.239			
011	12934	398		35.723			
012	7821	336	V	38.266			
013	47213	733	T	39.841			
014	24109	341	T	43.220			
015	11949	361	V	44.405			
016	19738	408		45.568			

STD B7 1OPPB

SAMPLE NO.: 01209316 . 06  
TEST NO. :  
METHOD NO. : 16 / 16

**INSTRUMENT:** 16  
**DATE TIME:** 01/20/93 17:18:03  
**PAGE NO.:** 01



**Y MAXIMUM:** 50732.  
**Y MINIMUM:** 50043.

**START TIME:** 0.00  
**END TIME:** 47.00

0000042

Roy F. Weston, Inc. - Lionville Laboratory

01/22/93 10:56:10

## MULTILEVEL EXTERNAL STANDARD

SAMPLE: 01209316 .06 INST:16 VIAL:F0 SEQ NUMBER:006  
 TEST : DATE-TIME INJECTED : 01/20/93 17:18:03  
 COLLECTION TIME : 46.94 DATE-TIME PROCESSED : 01/22/93 10:56:10  
 METHOD: 16 / 16B REV #: 00049 ANALYST: YATES SAMP RATE: 1.56  
 CLIENT ID: SAMPLE VOL: 5.0 ML  
 CLIENT: COLUMN TYPE: 1% SP1000, PI  
 LAB ID: STD B7 10PPB RAW FILE: RAW3:AK352770  
 SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL RT MINUTES	GR #	COMPONENT NAME	AREA CONC	PPB
001	8275	287		7.503			
002	83322	5385	V	11.831	M TRANS-1,2-DICHLOROET	10.121	
003	42720	320	T	15.172			
004	38592	2057	V	17.041			
005	95712	6580		17.992	M BENZENE	9.625	
006	16077	243	V	21.220			
007	11430	301	V	22.303			
008	35386	2323	T	23.693	M a,a,a-TRIFLUOROTOLUE	9.758	
009	78054	5879	T	24.476	M TOLUENE	9.327	
010	11098	352	T	25.387			
011	102035	3706		27.921	M ETHYLBENZENE	11.345	
012	9094	288	V	31.831			
013	84973	2791	T	32.788	M M-XYLENE	9.366	
014	71725	2135		33.926	M O-XYLENE	8.887	
015	21043	352	V	37.201			
016	70458	1161		39.811			
017	40890	355	V	43.844			
018	12397	326	V	45.012			
019	13427	351		46.163			

## STD B7 2OPPB

SAMPLE NO. : 01209316

TEST NO. :

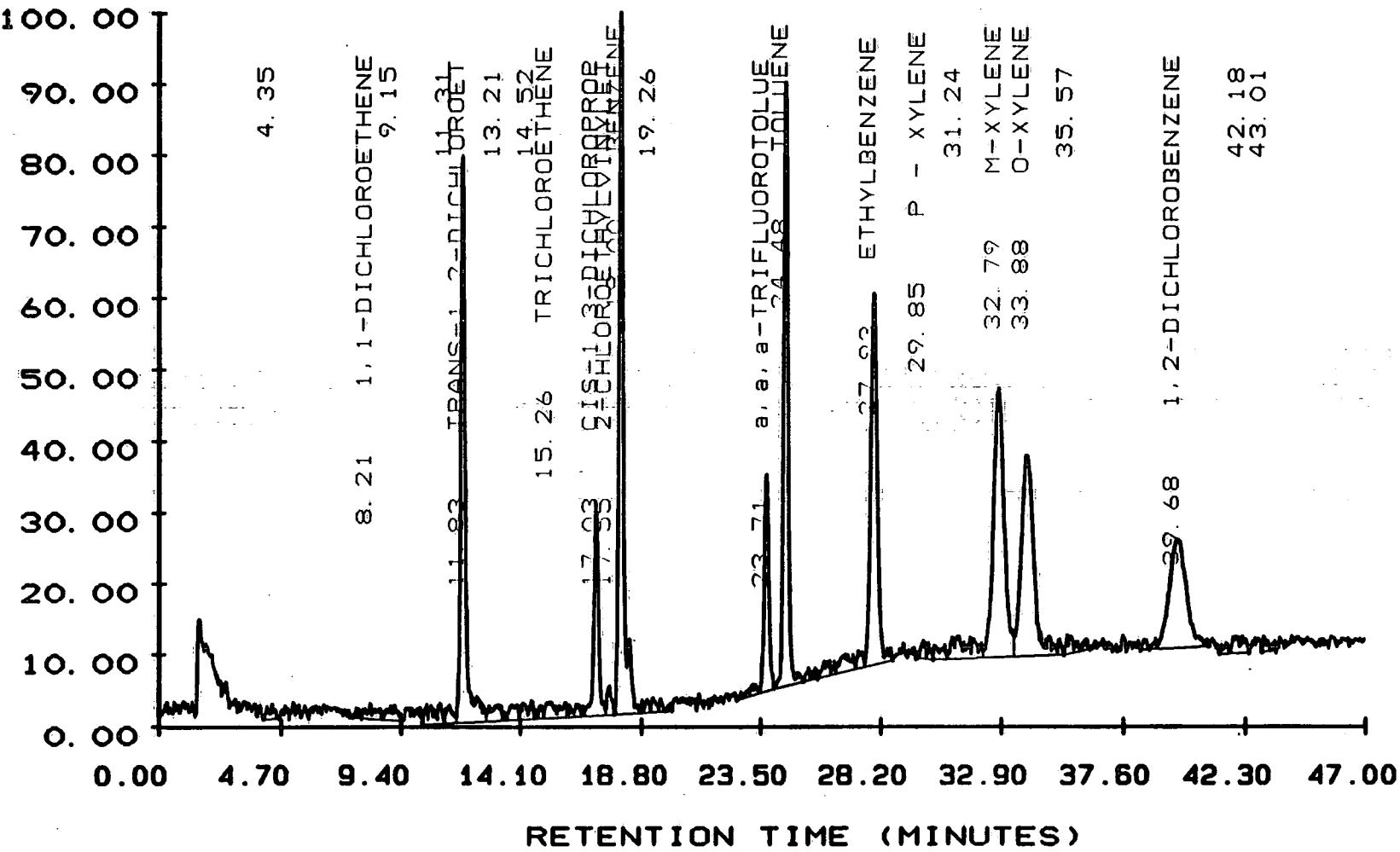
METHOD NO. : 16 / 16

.07

INSTRUMENT: 16

DATE TIME: 01/20/93 18:12:33

PAGE NO. : 01



0700044

Roy F. Weston, Inc. - Lionville Laboratory

01/22/93 10:56:35

## MULTILEVEL EXTERNAL STANDARD

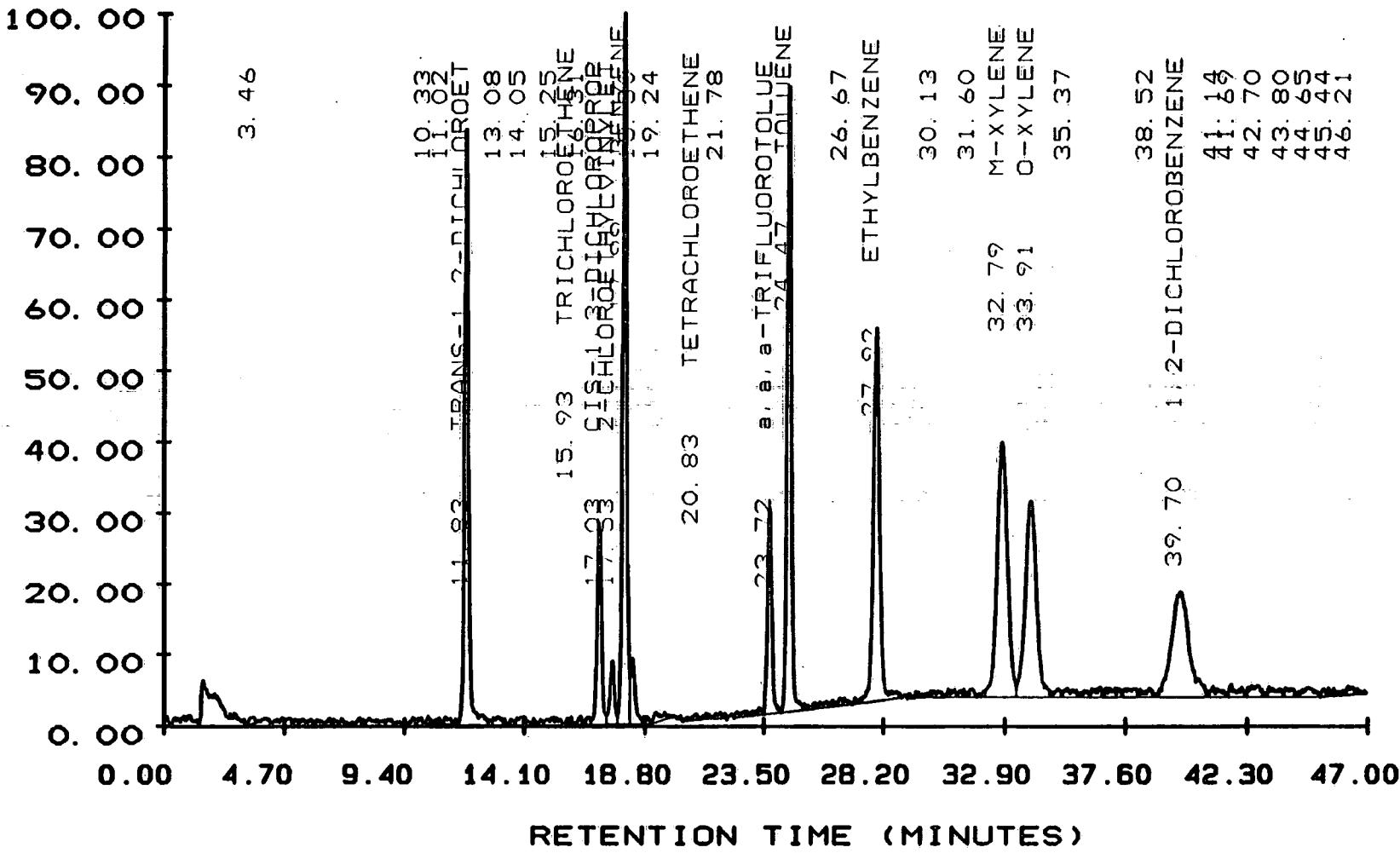
SAMPLE: 01209316 .07 INST:16 VIAL:FO SEQ NUMBER:007  
 TEST : DATE-TIME INJECTED : 01/20/93 18:12:33  
 COLLECTION TIME : 46.94 DATE-TIME PROCESSED : 01/22/93 10:56:35  
 METHOD: 16 / 16B REV #: 00049 ANALYST: YATES SAMP RATE: 1.56  
 CLIENT ID: SAMPLE VOL: 5.0 ML  
 CLIENT: COLUMN TYPE: 1% SP1000, PI  
 LAB ID: STD B7 20PPB RAW FILE: RAW3:AK352792  
 SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL RT MINUTES	GR #	COMPONENT NAME	AREA CONC	PPB
001	4992	316		4.346			
002	10406	314	V	8.214			
003	8179	327	V	9.152			
004	20826	373	T	11.312			
005	152442	12191	T	11.834	M TRANS-1,2-DICHLOROET	19.238	
006	11379	353	V	13.213			
007	17280	401	T	14.525			
008	16032	356	T	15.259			
009	63584	4422	T	17.031			
010	7482	623	V	17.549			
011	187891	15176	T	17.998	M BENZENE	20.005	
012	8960	311		19.259			
013	63302	4666	V	23.713	M a,a,a-TRIFLUOROTOLUE	18.898	
014	156749	13050	V	24.478	M TOLUENE	18.448	
015	173747	8050		27.926	M ETHYLBENZENE	20.653	
016	8000	395	V	29.850			
017	31910	493	T	31.237			
018	166976	5814	T	32.789	M M-XYLENE	19.395	
019	149165	4340	V	33.877	M O-XYLENE	20.549	
020	10848	357		35.571			
021	112454	2366		39.681			
022	13901	357	V	42.179			
023	5082	322		43.013			

## STD B7 4OPPB

SAMPLE NO.: 01209316 .08  
TEST NO.:  
METHOD NO.: 16 / 16

INSTRUMENT: 16  
DATE TIME: 01/20/93 19:07:00  
PAGE NO.: 01



RETENTION TIME (MINUTES)

Y MAXIMUM: 53459.  
Y MINIMUM: 50063.

START TIME: 0.00  
END TIME: 47.00

0100048

Roy F. Weston, Inc. - Lionville Laboratory

01/22/93 10:56:56

## MULTILEVEL EXTERNAL STANDARD

SAMPLE: 01209316 .08 INST:16 VIAL:FO SEQ NUMBER:008  
 TEST : DATE-TIME INJECTED : 01/20/93 19:07:00  
 COLLECTION TIME : 46.94 DATE-TIME PROCESSED : 01/22/93 10:56:56  
 METHOD: 16 / 16B REV #: 00049 ANALYST: YATES SAMP RATE: 1.56  
 CLIENT ID: SAMPLE VOL: 5.0 ML  
 CLIENT: COLUMN TYPE: 1% SP1000, PI  
 LAB ID: STD B7 40PPB RAW FILE: RAW3:AK352811  
 SAMPLE WT : DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL RT MINUTES	GR #	COMPONENT NAME	AREA CONC PPB
001	5370	316		3.463		
002	3072	322	V	10.331		
003	9197	342	V	11.015		
004	312448	28385	T	11.830	M TRANS-1,2-DICHLOROET	40.343
005	11245	403	V	13.079		
006	14893	392	T	14.047		
007	12723	373	V	15.250		
008	4397	386	T	15.930		
009	4429	390	T	16.309		
010	114074	9400	T	17.033		
011	36365	2952	T	17.533		
012	366246	33866	T	17.989	M BENZENE	40.087
013	43258	3033	V	18.299		
014	11648	475		19.238		
015	8346	280	V	20.827		
016	5344	298	V	21.782		
017	129446	9771	V	23.717	M a,a,a-TRIFLUOROTOLUE	40.554
018	349382	29751	T	24.474	M TOLUENE	40.774
019	18157	351	V	26.674		
020	317062	17807		27.920	M ETHYLBENZENE	39.256
021	12608	333	V	30.126		
022	18003	388	V	31.604		
023	338374	12169	T	32.794	M M-KYLENE	40.357
024	281478	9366	T	33.908	M O-KYLENE	40.476
025	16883	417	T	35.365		
026	51680	417	T	38.520		
027	237344	5033	T	39.696		
028	11770	396	T	41.139		
029	13254	601	T	41.694		
030	16154	523	T	42.704		
031	21907	429	T	43.800		
032	13626	451	V	44.649		
033	8141	421	T	45.442		
034	13485	415		46.212		

0000047

WESTEN

RAW QC DATA

0000048

CLIENT SAMPLE NO.

## GC VOLATILES SHEET

BLK

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0300Client: LE CARPENTERMatrix: WATERLab Sample ID: 93LV1602-MB1Sample wt/vol: 5.00 (g/mL) MLLab File ID: AQ354656Level: (low/med) LOWDate Received: 01/26/93% Moisture: not dec.       Date Analyzed: 01/26/93Column: (pack/cap) PACKDilution Factor: 1.00

## CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

71-43-2-----	Benzene	1.0	U
100-41-4-----	Ethylbenzene	1.0	U
108-88-3-----	Toluene	1.0	U
1330-20-7-----	Xylene (total)	2.0	U

12/88 Rev.

*flat  
2/9/93*

93LV1602-MB1

SAMPLE NO.: 01269316 .04

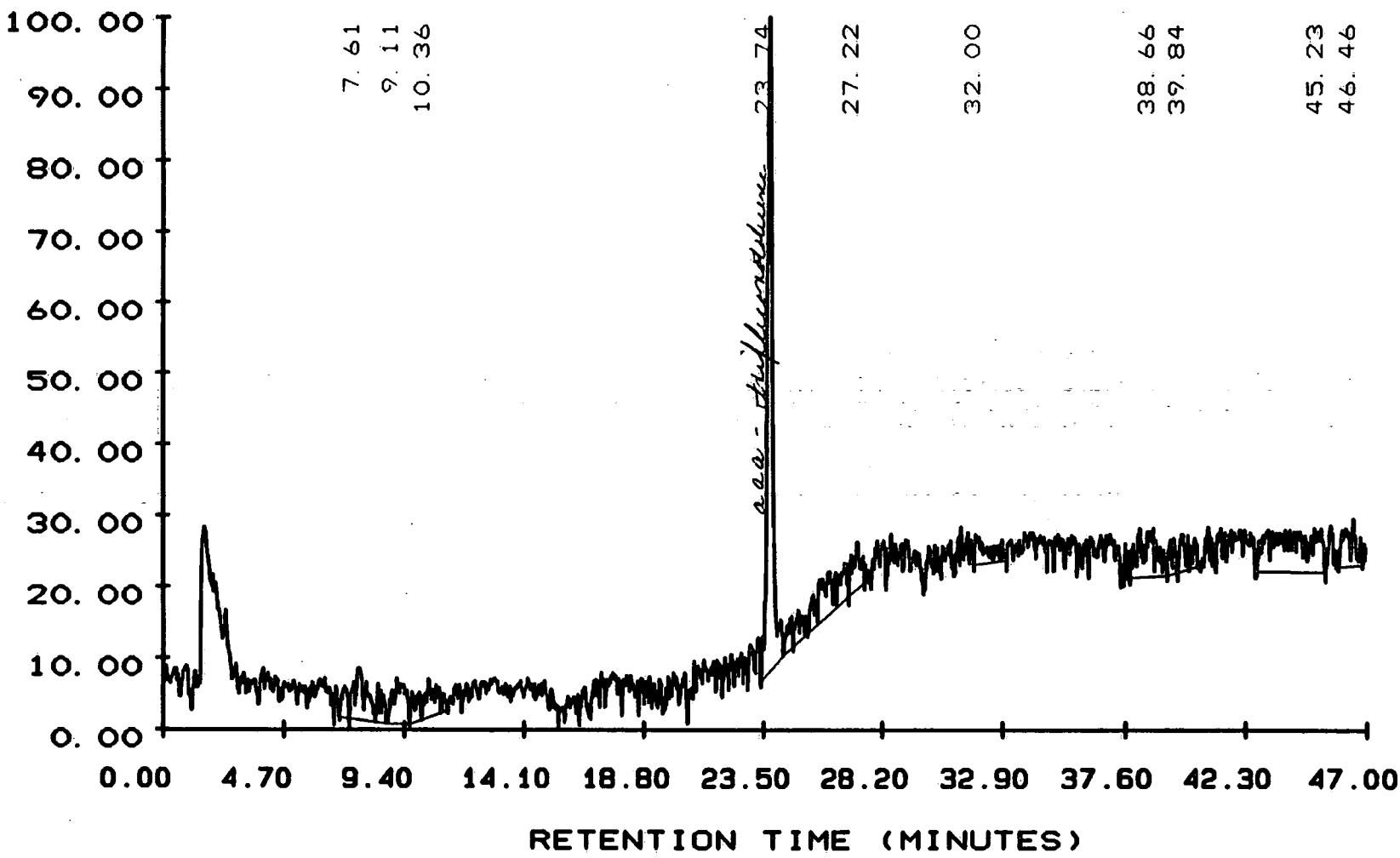
TEST NO.:

METHOD NO.: 16 / 16

INSTRUMENT: 16

DATE TIME: 01/26/93 14:16:46

PAGE NO.: 01



Y MAXIMUM: 50577.

Y MINIMUM: 50063.

START TIME: 0.00

END TIME: 47.00

0000050

Roy F. Weston, Inc. - Lionville Laboratory

01/27/93 09:14:45

## MULTILEVEL EXTERNAL STANDARD

SAMPLE: 01269316 .04 INST:16 VIAL:F0 SEQ NUMBER:004  
 TEST : DATE-TIME INJECTED : 01/26/93 14:16:46  
 COLLECTION TIME : 46.94 DATE-TIME PROCESSED : 01/27/93 09:14:45  
 METHOD: 16 / 16B REV #: 00049 ANALYST: LINDAD SAMP RATE: 1.56  
 CLIENT ID: SAMPLE VOL: 5.0 ML  
 CLIENT: COLUMN TYPE: 1% SP1000, PI  
 LAB ID: 93LV1602-MB1 RAW FILE: RAW3:AQ354656  
 SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL RT MINUTES	GR #	COMPONENT NAME	AREA	CONC	PPB
001	19667	371	V	7.606				
002	10650	323	V	9.113				
003	11910	267		10.360				
				11.850 M TRANS-1,2-DICHLOROET				
				18.010 M BENZENE				
004	63520	4729	V	23.741 M a,a,a-TRIFLUOROTOLUE	18.969			
				24.500 M TOLUENE				
005	33485	339		27.220				
				27.930 M ETHYLBENZENE				
006	7373	196		32.002				
				32.820 M M-XYLENE				
				33.920 M O-XYLENE				
007	15853	343	V	38.659				
008	10349	266		39.841				
009	35251	313	V	45.234				
010	9171	341		46.459				

*flat  
2/1/93*

000051

CLIENT SAMPLE NO.

## GC VOLATILES SHEET

BLKMS

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0300Client: LE CARPENTERMatrix: WATERLab Sample ID: 93LV1602-MB1 BSSample wt/vol: 5.00 (g/mL) MLLab File ID: AQ354615Level: (low/med) LOWDate Received: 01/26/93% Moisture: not dec.       Date Analyzed: 01/26/93Column: (pack/cap) PACKDilution Factor: 1.00

## CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		
71-43-2-----	Benzene		SP
100-41-4-----	Ethylbenzene		SP
108-88-3-----	Toluene		SP
1330-20-7-----	Xylene (total)		SP

SP: SPIKE COMPOUND

12/88 Rev.

JLW  
2/19/93

۹۳LV1601-MB1S

SAMPLE NO. : 01269316

02

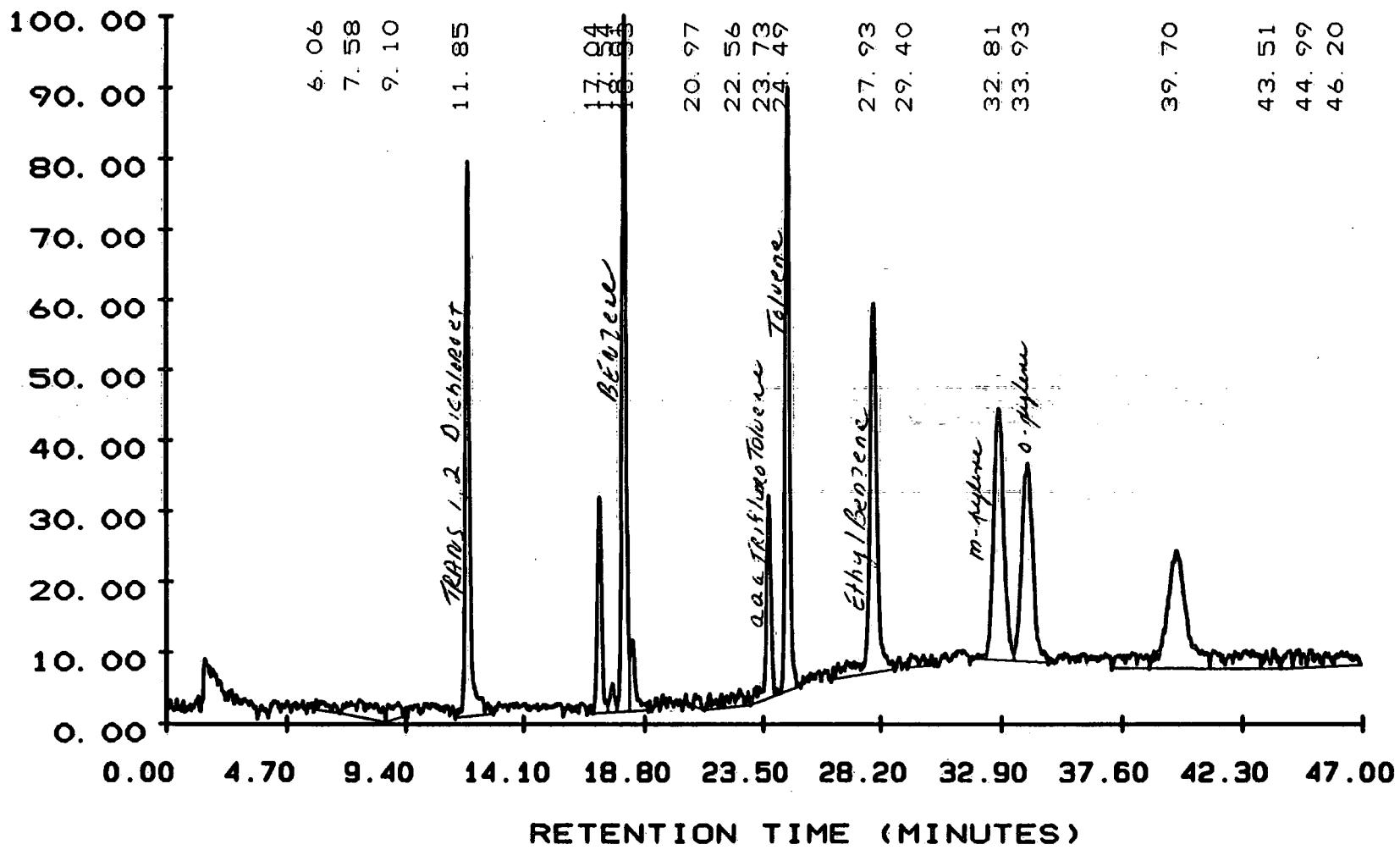
**INSTRUMENT: 16**

**TEST NO. :**

DATE TIME: 01/26/93 11:23:58

METHOD NO. : 16 / 16

PAGE NO. : 01



**Y MAXIMUM: 51617.**  
**Y MINIMUM: 50067.**

**START TIME:** 0. 00  
**END TIME:** 47. 00

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Roy F. Weston, Inc. - Lionville Laboratory

01/26/93 12:57:14

## MULTILEVEL EXTERNAL STANDARD

SAMPLE: 01269316 .02 INST:16 VIAL:FO SEQ NUMBER:002  
TEST : DATE-TIME INJECTED : 01/26/93 11:23:58  
COLLECTION TIME : 46.94 DATE-TIME PROCESSED : 01/26/93 12:57:14  
METHOD: 16 / 16B REV #: 00049 ANALYST: LINDAD SAMP RATE: 1.56  
CLIENT ID: SAMPLE VOL: 5.0 ML  
CLIENT: COLUMN TYPE: 1% SP1000, PID  
LAB ID: 93LV1601-MB1MS RAW FILE: RAW3:AQ354615  
SAMPLE WT : 1.000 DILUTION FACTOR : 1.0000

PK	PEAK NO	PEAK AREA	BL HEIGHT	RT MINUTES	GR #	COMPONENT NAME	AREA CONC PPB
001	8109		198	V	6.058		
002	27437		384	V	7.582		
003	11654		338		9.103		
004	149882	12165		11.845		TRANS-1,2-DICHLOROET	18.901
005	56218	4704	T	17.041			
006	7590	611	T	17.543			
007	166778	15228	T	18.008		BENZENE	17.627 ✓
008	23936	1541		18.327			
009	4262	263	V	20.972			
010	19891	358	V	22.561			
011	60634	4390	T	23.730		a,a,a-TRIFLUOROTOLUE	18.025 ✓
012	158758	13184		24.495		TOLUENE	18.681 ✓
013	168032	8099		27.932		ETHYLBENZENE	19.912 ✓
014	9722	285		29.400			
015	152122	5517	T	32.811		M-XYLENE	17.579 ✓
016	130266	4318		33.930		O-XYLENE	17.703 ✓
017	155443	2571	T	39.701			
018	44288	425	V	43.511			
019	24038	380	T	44.995			
020	17216	306		46.196			

All compounds were quantitated using method 16B except those which are labeled.

0000054

CLIENT SAMPLE NO.

## GC VOLATILES SHEET

BLK

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0300Client: LE CARPENTERMatrix: WATERLab Sample ID: 93LV16L3-MB1Sample wt/vol: 5.00 (g/mL) MLLab File ID: AR354998Level: (low/med) LOWDate Received: 01/27/93% Moisture: not dec.       Date Analyzed: 01/27/93Column: (pack/cap) PACKDilution Factor: 1.00

## CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

71-43-2-----Benzene	1.0	U
100-41-4-----Ethylbenzene	1.0	U
108-88-3-----Toluene	1.0	U
1330-20-7-----Xylene (total)	2.0	U

12/88 Rev.

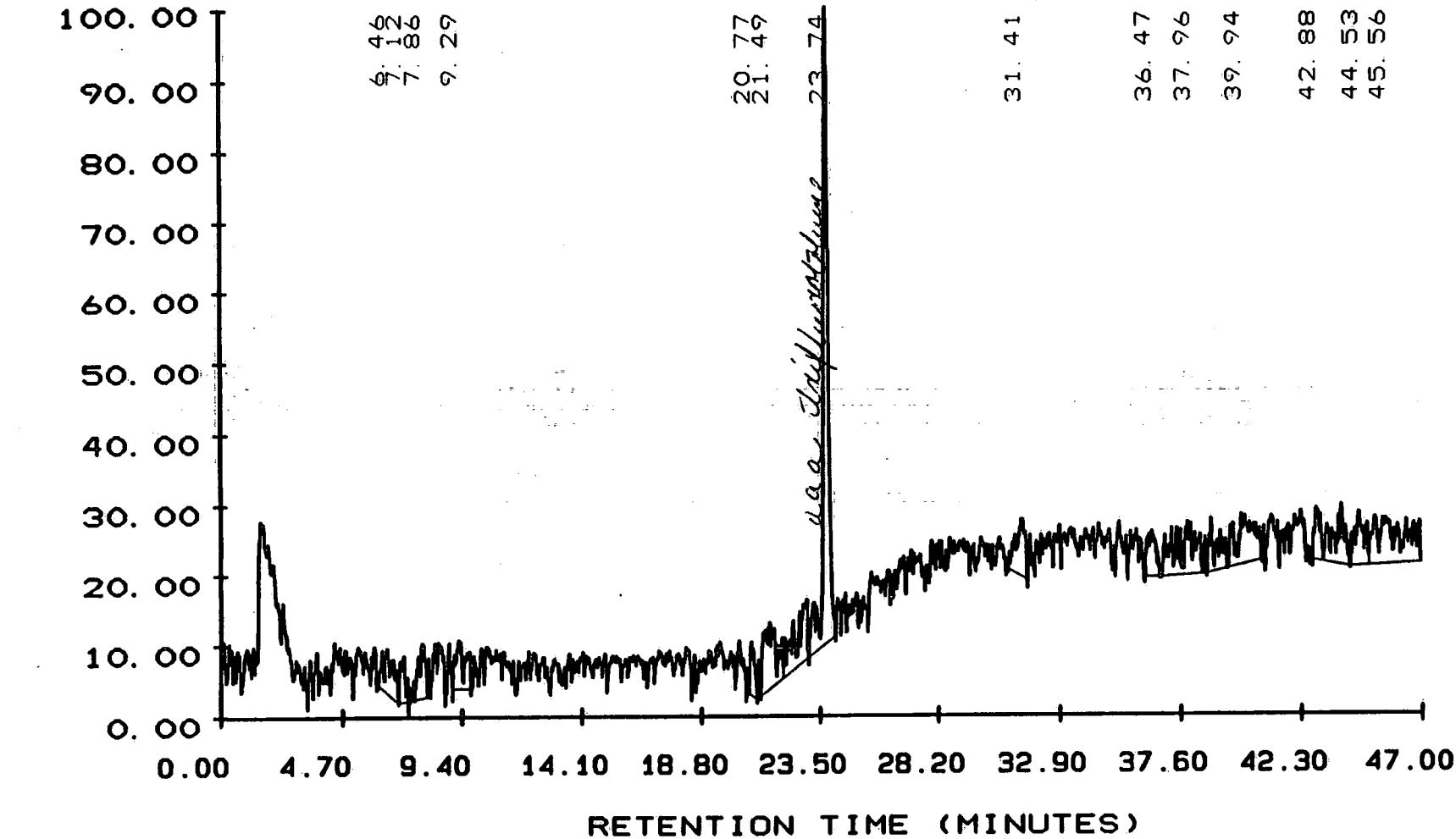
gut  
2/9/93

93LV16Q3-MB1

SAMPLE NO.: 01279316

TEST NO.:

METHOD NO.: 16B / 16B



Y MAXIMUM: 50528.

Y MINIMUM: 50068.

START TIME: 0. 00

END TIME: 47. 00

0700056

Roy F. Weston, Inc. - Lionville Laboratory

01/27/93 12:10:16

## MULTILEVEL EXTERNAL STANDARD

SAMPLE: 01279316 .01 INST:16 VIAL:F0 SEQ NUMBER:001  
 TEST : DATE-TIME INJECTED : 01/27/93 11:22:32  
 COLLECTION TIME : 46.94 DATE-TIME PROCESSED : 01/27/93 12:10:16  
 METHOD: 16B / 16B REV #: 00049 ANALYST: LINDAD SAMP RATE: 1.56  
 CLIENT ID: SAMPLE VOL: 5.0 ML  
 CLIENT: COLUMN TYPE: 1% SP1000, PI  
 LAB ID: 93LV16Q3-MB1 RAW FILE: RAW3:AR354998  
 SAMPLE WT : 900 2/1/93 % MOISTURE : DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL RT MINUTES	GR #	COMPONENT NAME	AREA CONC PPB
001	8134	281	V	6.456		
002	3776	297	V	7.119		
003	7411	338	V	7.860		
004	7936	307		9.291		
					11.850 M TRANS-1,2-DICHLOROET	
					18.010 M BENZENE	
005	4192	327	V	20.768		
006	15578	425	T	21.485		
007	69638	4133		23.740 M a,a,a-TRIFLUOROTOLUE	20.972	
				24.500 M TOLUENE		
				27.930 M ETHYLBENZENE		
008	8928	370		31.411		
				32.820 M M-XYLENE		
				33.920 M O-XYLENE		
009	6650	274	V	36.471		
010	18957	333	V	37.965		
011	23571	333		39.944		
012	16224	318	V	42.875		
013	9011	355	T	44.527		
014	23776	303		45.563		

900  
2/1/93

0000057

CLIENT SAMPLE NO.

## GC VOLATILES SHEET

BLKMS

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0300Client: LE CARPENTERMatrix: WATERLab Sample ID: 93LV16L3-MB1 BSSample wt/vol: 5.00 (g/mL) MLLab File ID: AR355028Level: (low/med) LOWDate Received: 01/27/93% Moisture: not dec.       Date Analyzed: 01/27/93Column: (pack/cap) PACKDilution Factor: 1.00

## CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

71-43-2-----	Benzene		SP
100-41-4-----	Ethylbenzene		SP
108-88-3-----	Toluene		SP
1330-20-7-----	Xylene (total)		SP

SP: SPIKE COMPOUND

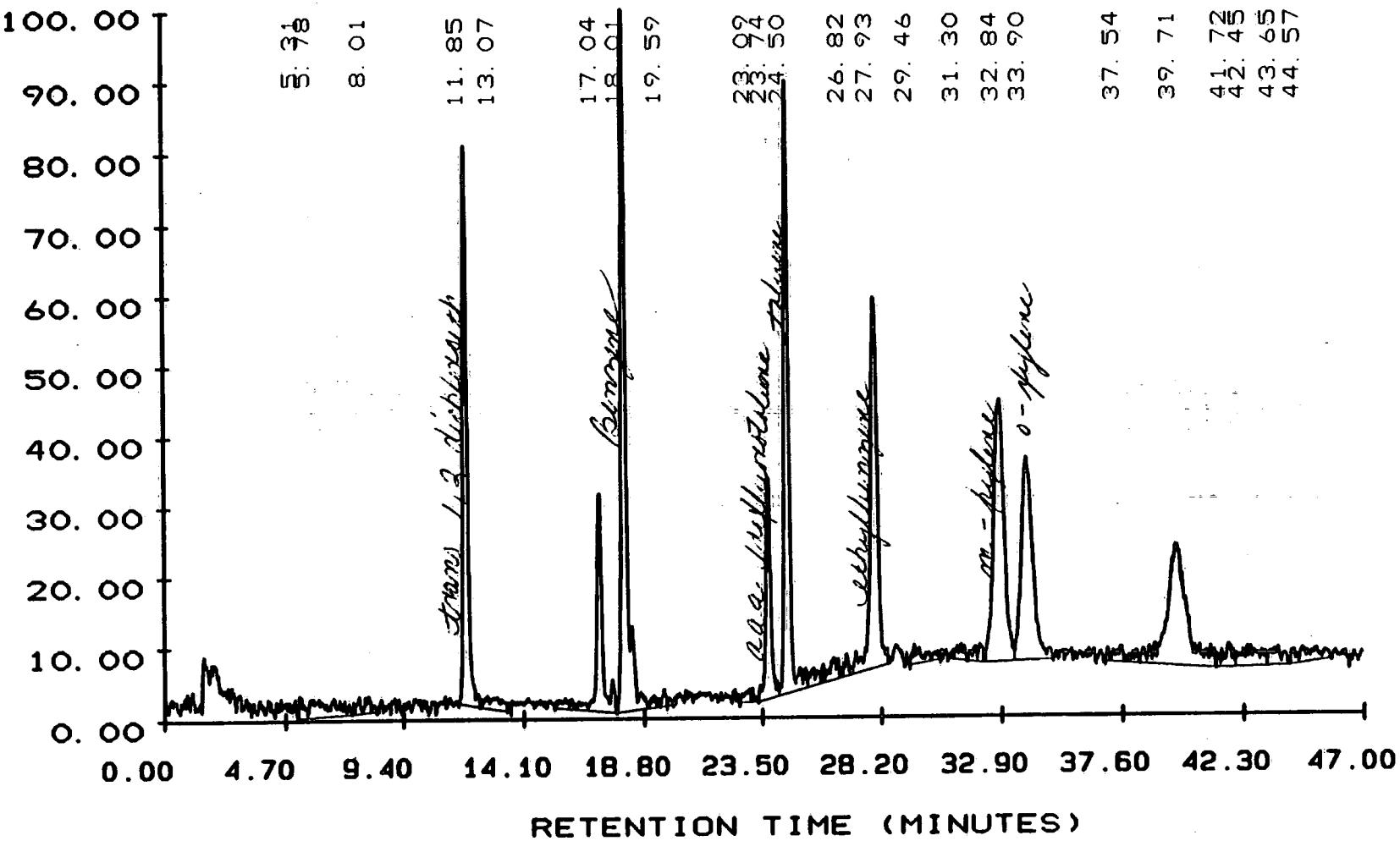
12/88 Rev.

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2/9/93

93LV1603-MB1S

SAMPLE NO. : 01279316 .02  
TEST NO. :  
METHOD NO. : 16B / 16B

INSTRUMENT: 16  
DATE TIME: 01/27/93 12:17:15  
PAGE NO. : 01



0000059

Roy F. Weston, Inc. - Lionville Laboratory

01/27/93 13:04:48

## MULTILEVEL EXTERNAL STANDARD

SAMPLE: 01279316 .02

INST:16 VIAL:FO SEQ NUMBER:002

TEST :

DATE-TIME INJECTED : 01/27/93 12:17:15

COLLECTION TIME : 46.94

DATE-TIME PROCESSED : 01/27/93 13:04:48

METHOD: 16B / 16B REV #: 00049 ANALYST: LINDAD SAMP RATE: 1.56

CLIENT ID:

SAMPLE VOL: 5.0 ML

CLIENT:

COLUMN TYPE: 1% SP1000, PI

LAB ID: 93LV16Q3-MB1MS

RAW FILE: RAW3:AR355028

SAMPLE WT : 9.03

21007

% MOISTURE :

DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL RT MINUTES	GR #	COMPONENT NAME	AREA CONC PPB
001	5075	376	T 5.315			
002	21613	334	V 5.782			
003	9043	295		8.008		
004	121306	10721	V 11.846	M	TRANS-1,2-DICHLOROET	15.131
005	10573	232		13.068		
006	68045	4154	V 17.037			
007	174765	13418	T 18.008	M	BENZENE	18.527
008	7878	309		19.587		
009	5690	251	V 23.086			
010	56243	4231	T 23.739	M	a,a,a-TRIFLUOROTOLUE	16.587
011	149600	11727	T 24.498	M	TOLUENE	17.620
012	23002	410	T 26.823			
013	137677	7101		27.925	M ETHYLBENZENE	15.971
014	10368	353		29.465		
015	14029	310	V 31.298			
016	144954	5031	T 32.843	M	M-XYLENE	16.702
017	122394	3888		33.903	M O-XYLENE	16.518
018	11597	309	T 37.541			
019	125491	2321	V 39.710			
020	11194	457	T 41.717			
021	18522	396	T 42.450			
022	11270	359	V 43.647			
023	16614	300		44.571		

glut 2/19/93

000060

CLIENT SAMPLE NO.

## GC VOLATILES SHEET

MW-4MS

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0300Client: LE CARPENTERMatrix: WATERLab Sample ID: 9301L306-001 MSSample wt/vol: 5.00 (g/mL) MLLab File ID: AQ354749Level: (low/med) LOWDate Received: 01/15/93% Moisture: not dec.       Date Analyzed: 01/26/93Column: (pack/cap) PACKDilution Factor: 1.00

## CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L

71-43-2-----Benzene		SP
100-41-4-----Ethylbenzene		SP
108-88-3-----Toluene		SP
1330-20-7-----Xylene (total)		SP

SP: SPIKE COMPOUND

12/88 Rev.

gc  
2/9/93

9301L306-001S

SAMPLE NO. : 01269316 . 10

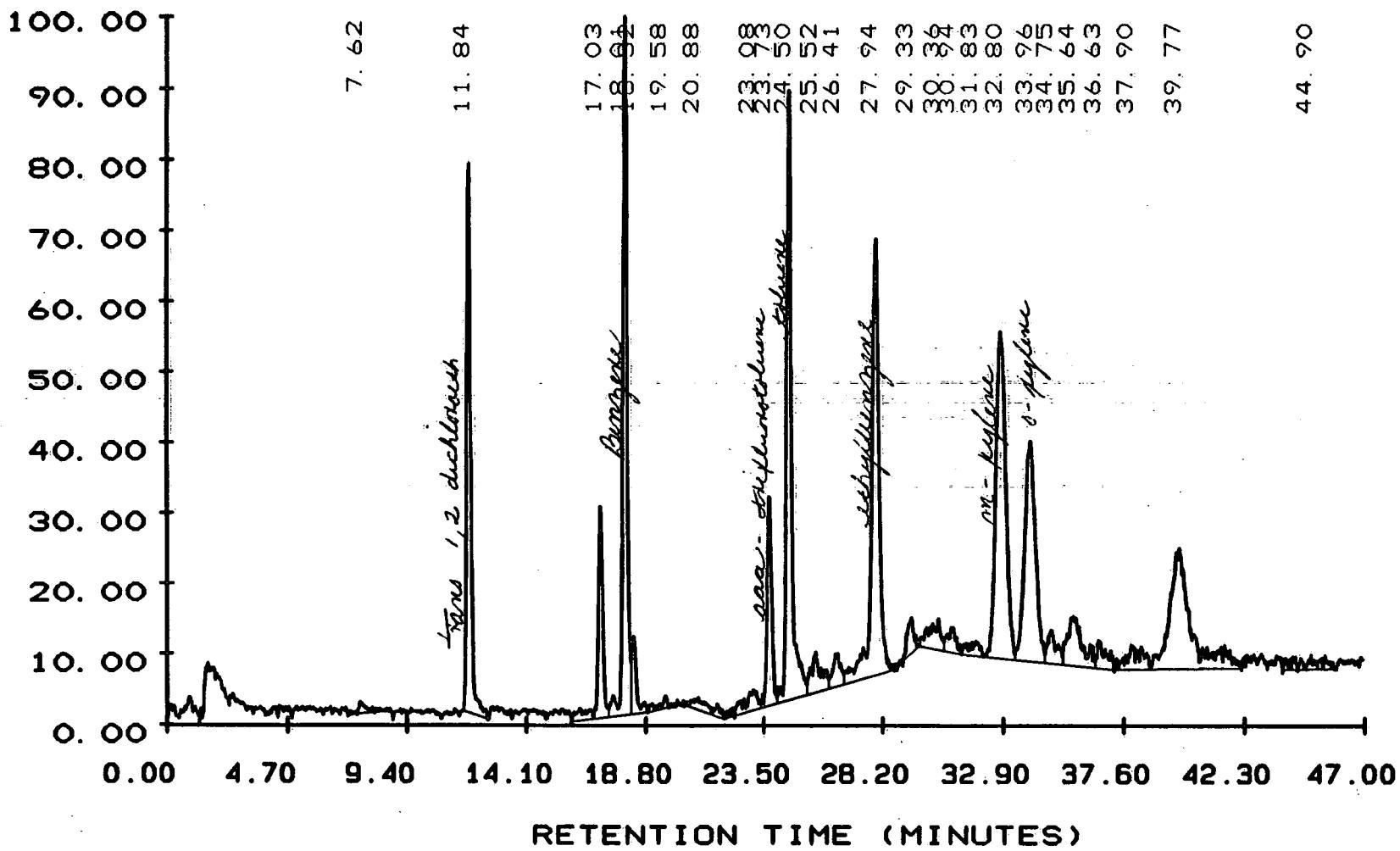
**TEST NO. :**

**METHOD NO. : 16B / 16B**

**INSTRUMENT: 16**

DATE TIME: 01/26/93 19:44:31

PAGE NO. : 01



**Y MAXIMUM: 51530.  
Y MINIMUM: 50066.**

**START TIME:** 0.00  
**END TIME:** 47.00

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Roy F. Weston, Inc. - Lionville Laboratory

01/27/93 09:20:33

## MULTILEVEL EXTERNAL STANDARD

SAMPLE: 01269316 .10 INST:16 VIAL:FO SEQ NUMBER:010  
 TEST : O602X DATE-TIME INJECTED : 01/26/93 19:44:31  
 COLLECTION TIME : 46.94 DATE-TIME PROCESSED : 01/27/93 09:20:33  
 METHOD: 16B / 16B REV #: 00049 ANALYST: LINDAD SAMP RATE: 1.56  
 CLIENT ID: MW-4 SAMPLE VOL: 5.0 ML  
 CLIENT: LE CARPENTER COLUMN TYPE: 1% SP1000, PI  
 LAB ID: 9301L306-001MS RAW FILE: RAW3:AQ354749  
 SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL MINUTES	RT #	GR COMPONENT NAME	AREA CONC PPB
001	6560	227		7.619		
002	127194	11343		11.843	M TRANS-1,2-DICHLOROET	15.908
003	60365	4383	T	17.033		
004	167341	14432	T	18.007	M BENZENE	17.691 ✓
005	21581	1596	V	18.315		
006	6125	255		19.584		
007	13555	260	V	20.884		
008	17690	415	T	23.081		
009	54310	4333	T	23.726	M a,a,a-TRIFLUOROTOLUE	15.954 ✓
010	171904	12613	T	24.496	M TOLUENE	20.205 ✓
011	23782	814	T	25.525		
012	14963	669	T	26.415		
013	186893	9056		27.938	M ETHYLBENZENE	22.360 ✓
014	12941	739	V	29.326		
015	19814	630	T	30.357		
016	12064	512	V	30.944		
017	10093	294	T	31.827		
018	179699	6761	T	32.798	M M-XYLENE	20.951
019	132173	4558	T	33.958	M O-XYLENE	17.990
020	16845	687	T	34.752		
021	42419	1013	T	35.642		
022	14022	549	V	36.635		
023	22227	514	T	37.902		
024	145075	2512		39.767		
025	17830	284		44.902		

0000063

CLIENT SAMPLE NO.

## GC VOLATILES SHEET

MW-4MSD

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0300Client: LE CARPENTERMatrix: WATERLab Sample ID: 9301L306-001 MSDSample wt/vol: 5.00 (g/mL) MLLab File ID: AQ354768Level: (low/med) LOWDate Received: 01/15/93

% Moisture: not dec.

Date Analyzed: 01/26/93Column: (pack/cap) PACKDilution Factor: 1.00

## CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

71-43-2-----Benzene		SP
100-41-4-----Ethylbenzene		SP
108-88-3-----Toluene		SP
1330-20-7-----Xylene (total)		SP

SP: SPIKE COMPOUND

12/88 Rev.

9101  
3/19/93

9301L306-001T

SAMPLE NO. : 01269316

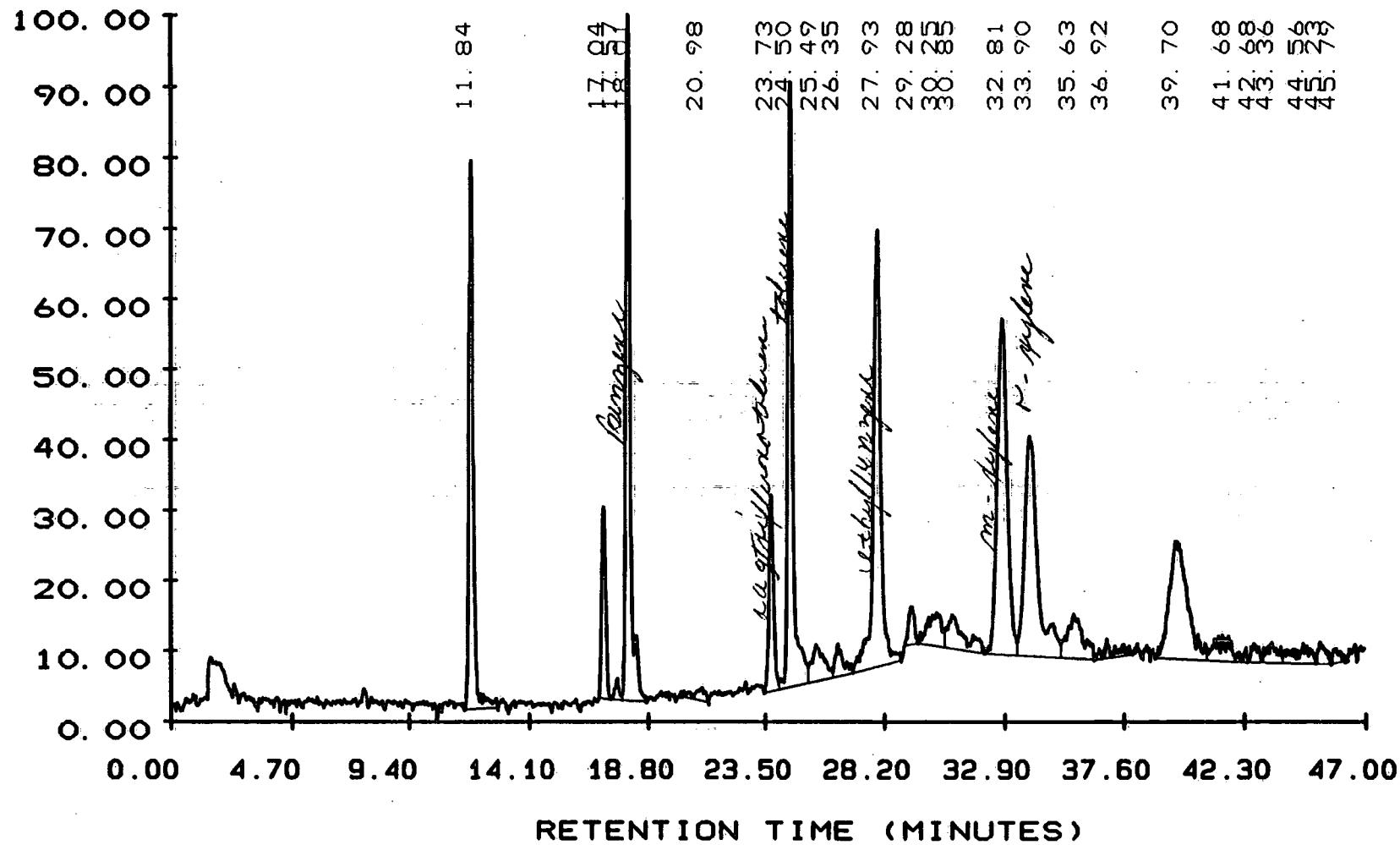
TEST NO. :

METHOD NO. : 16B / 16B

INSTRUMENT: 16

DATE TIME: 01/26/93 20:38:59

PAGE NO. : 01



Y MAXIMUM: 51453.

Y MINIMUM: 50064.

START TIME: 0.00

END TIME: 47.00

0000065

Roy F. Weston, Inc. - Lionville Laboratory

01/27/93 09:21:28

## MULTILEVEL EXTERNAL STANDARD

SAMPLE: 01269316 .11  
 TEST : O602X  
 COLLECTION TIME : 46.94  
 METHOD: 16B / 16B REV #: 00049 ANALYST: LINDAD SAMP RATE: 1.56  
 CLIENT ID: MW-4 SAMPLE VOL: 5.0 ML  
 CLIENT: LE CARPENTER COLUMN TYPE: 1% SP1000, PI  
 LAB ID: 9301L306-001MSD RAW FILE: RAW3:AQ354768  
 SAMPLE WT : % MOISTURE : DILUTION FACTOR : 1.0000

PK NO	PEAK AREA	PEAK HEIGHT	BL RT MINUTES	GR. COMPONENT #	NAME	AREA CONC	PPB
001	125536	10786		11.840 M	TRANS-1,2-DICHLOROET	15.689	
002	40710	3774	V	17.035			
003	4774	413	T	17.569			
004	163603	13488		18.005 M	BENZENE	17.270✓	
005	8384	272		20.983			
006	47968	3868	T	23.733 M	a,a,a-TRIFLUOROTOLUE	13.878✓	
007	162099	11870	T	24.496 M	TOLUENE	19.068✓	
008	24090	717	T	25.492			
009	14112	647	V	26.352			
010	176979	8590		27.930 M	ETHYLBENZENE	21.073✓	
011	11846	749	V	29.279			
012	24691	656	T	30.246			
013	30125	659	V	30.853			
014	179898	6607	T	32.811 M	M-XYLENE	20.976	{ 21.26
015	155725	4327	T	33.898 M	O-XYLENE	21.537✓	
016	38061	875	V	35.635			
017	10368	356		36.923			
018	115341	2328	T	39.697			
019	21517	510	V	41.676			
020	9331	374	T	42.678			
021	11149	394	T	43.359			
022	16832	382	V	44.559			
023	8614	425	V	45.230			
024	5510	258		45.787			

9104  
3/19/93

## SAMPLE PREP RECORD

Sheet no.: 1

Extract. Date: 01/26/93

Extraction Batch No: 93LV1602

Analyst: LD

Method: N/A

Test: O602

Cleanup Date:

Analyst:

Client: LE CARPENTER

LIMS Report Date: 02/10/93

Solvent:

Adsorbent:

Sample No:	Client Name Client ID	pH	Initial WT/VOL	Surr. Mult.	Spike Mult.	Final VOL	Final VOL	Split Mult.	GPC Y/N	% Solids	C/D FACTOR
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9301L306- LE CARPENTER

001 X	MW-4	3.00	5.	1.0		5		1.0	N		1.0
001 XS	MW-4	3.00	5	1.0	1.0	5		1.0	N		1.0
001 XT	MW-4	3.00	5	1.0	1.0	5		1.0	N		1.0
002 X	MW-14S	3.00	5	1.0		5		1.0	N		1.0
003 X	MW-22	3.00	5	1.0		5		1.0	N		1.0
006 X	TB-1	3.00	5	1.0		5		1.0	N		1.0
93LV1602-MB1 X		7.00	5	1.0		5		1.0	N		1.0
93LV1602-MB1 XS		7.00	5	1.0	1.0	5		1.0	N		1.0

Comments:

Surrogate:

Spike:

Extracts Transferred	Relinquished By	Date Time	Received By	Date Time	Reason for Transfer

## SAMPLE PREP RECORD

Sheet no.: 1

Extract. Date: 01/26/93

Extraction Batch No: 93LV16L3

Analyst: LD

Method: N/A

Test: 0602

Cleanup Date:

Analyst:

Client: LE CARPENTER

LIMS Report Date: 02/10/93

Solvent:

Adsorbent:

Sample No:	Client Name Client ID	pH	Initial	Surr.	Spike	Final	Final	Split	GPC	%	C/D
		WT/VOL	Mult.	Mult.	VOL	VOL	Mult.	Y/N	Solids	FACTOR	
9301L306-	LE CARPENTER										
001 X R1	MW-4	3.00	5.0	1.0		5		1.0	N		1.0
003 X D1	MW-22	3.00	5.0	1.0		5		1.0	N		1.0
004 X	MW-25	3.00	5	1.0		5		1.0	N		1.0
93LV16L3-MB1 X		7.00	5.0	1.0		5		1.0	N		1.0
93LV16L3-MB1 XS		7.00	5.0	1.0	1.0	5		1.0	N		1.0

Comments:

Surrogate:

Spike:

Extracts Transferred	Relinquished By	Date Time	Received By	Date Time	Reason for Transfer

0000068

WESTEN

END OF PACKAGE

# ***Inter-Office Memorandum***



TO: BRUCE BABCOCK

FROM: Mike Young

DATE: 18 FEBRUARY 1993

PROJECT: LE CARPENTER

W.O. NO.: W.O. NO.:

SUBJECT: RFW# 9301L306 ANALYTICAL RESULTS

ACTION:

ENCLOSED ARE THE ABOVE REFERENCED RESULTS. PLEASE CALL IF YOU HAVE ANY QUESTIONS.

Roy F. Weston, Inc. - Lionville Laboratory  
BNA ANALYTICAL DATA PACKAGE FOR  
LE CARPENTER

DATE RECEIVED: 01/15/93

RFW LOT # :9301L306

CLIENT ID	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
FB-1	005	W	93LE0084	01/14/93	01/20/93	02/09/93
MW-110	007	W	93LE0084	01/14/93	01/20/93	02/09/93
MW-110	007	01	W	93LE0084	01/14/93	01/20/93
MW-110	007 MS	W	93LE0084	01/14/93	01/20/93	02/09/93
MW-110	007 MSD	W	93LE0084	01/14/93	01/20/93	02/09/93

LAB QC:

SBLK	MB1	W	93LE0084	N/A	01/20/93	02/09/93
SBLK	MB1 BS	W	93LE0084	N/A	01/20/93	02/09/93

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B. Matrix Spike (Form 3)	
C. Reagent Blank Summary (Form 4)	
D. GC/MS Tuning and Calibration Standard (Form 5)	
E. Internal Standard Summary (Form 8) (if applicable)	
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2. Tentatively identified compound (form 1E)	
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b. Quantitation Report(s)	
c. HSL Mass Spectra	
d. TIC Mass Spectra	
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B. Continuing Calibration Data	
1. Form 7	
2. Reconstructed Ion Chromatogram(s) and	
Quantitation Report(s)	
C. Internal Standard Summary (Form 8) (if applicable)	
V. Raw QC Data Package.....	100
A. GC/MS Tuning and Calibration Standard: DFTPP	
1. Bar Graph	
2. Mass Listing	
B. Blank Data	
1. Tabulated Results (Form 1)	
2. TIC Results (Form 1B)	
3. Raw Data	
a. Reconstructed Ion Chromatogram(s)	
and Quantitation Report(s)	
b. HSL Spectra	
c. TIC Spectra	
d. GC/MS Library Search for TIC	
C. Matrix Spike Data (if applicable)	
1. Tabulated Results (Form 1)	
2. Raw Data	
a. Reconstructed Ion Chromatogram(s)	
b. Quantitation Report(s)	
VI. Additional Documentation.....	140
A. Extraction Record	

000001

**CHAIN OF CUSTODY**

93016 306

# **Custody Transfer Record/Lab Work Request**



Page 1 of 1

**FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS**

**DATE/REVISIONS:**

**Special Instructions:**

\*RECD 3 VOLS FOR.

• Analyze for PP BN + 15 ~~TIC~~

Report DEHP only  
Sue No CLP needed (req.: spectra)

All samples collected 1/14/93

Relinquished by	Received by	Date	Time	Relinquished by	Received by	Date	Time
<i>CDJ</i>					<i>SL 11-15-15</i>		
<i>ERDIX</i>	<i>SL</i>	<i>11/15/15</i>					

**Discrepancies Between  
Samples Labels and  
COC Record? Y or N**

**WESTON Analytics Use Only**

#### Samples were:

- 1) Shipped  or Hand Delivered   
Airbill ~~5845 7720~~

2) Ambient or Chilled

3) Received in Good Condition  or N

4) Labels Indicate Properly Preserved  or N

5) Received Within Holding Times  or N

1) Present on Outer Package  or N

2) Unbroken on Outer Package  or N

3) Present on Sample Y or

4) Unbroken on Sample Y or

COC Record Present Upon Sample Rec't  or N

0000003

**DATA SUMMARY**

## Roy F. Weston, Inc. - Lionville Laboratory

Base/Neutrals by GC/MS

Report Date: 02/17/93 13:33

RFW Batch Number: 9301L306

Client: LE CARPENTER

Work Order: 6720-02-15-0300 Page: 1a

	Cust ID:	FB-1	MW-110	MW-110	MW-110	MW-110	SBLK
Sample Information	RFW#:	005	007	007 DL	007 MS	007 MSD	93LE0084-MB1
	Matrix:	WATER	WATER	WATER	WATER	WATER	WATER
	D.F.:	1.00	1.00	5.00	1.00	1.00	1.00
	Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Surrogate Recovery	Nitrobenzene-d5 2-Fluorobiphenyl p-Terphenyl-d14	65 % 58 % 56 %	67 % 57 % 30 * %	56 % 59 % 33 %	67 % 57 % 44 %	67 % 57 % 65 %	67 % 55 % 71 %
		====f1=====	====f1=====	====f1=====	====f1=====	====f1=====	====f1=====
	bis(2-Chloroethyl)ether	11 U	11 U	55 U	22 U	22 U	10 U
	1,3-Dichlorobenzene	11 U	11 U	55 U	22 U	22 U	10 U
	1,4-Dichlorobenzene	11 U	11 U	55 U	61 %	61 %	10 U
	1,2-Dichlorobenzene	11 U	11 U	55 U	22 U	22 U	10 U
	bis(2-Chloroisopropyl)ether	11 U	11 U	55 U	22 U	22 U	10 U
	N-Nitroso-Di-n-propylamine	11 U	11 U	55 U	70 %	74 %	10 U
	Hexachloroethane	11 U	11 U	55 U	22 U	22 U	10 U
	Nitrobenzene	11 U	11 U	55 U	22 U	22 U	10 U
	Iscophorone	11 U	11 U	55 U	22 U	22 U	10 U
	bis(2-Chloroethoxy)methane	11 U	11 U	55 U	22 U	22 U	10 U
	1,2,4-Trichlorobenzene	11 U	11 U	55 U	76 %	79 %	10 U
	Naphthalene	11 U	11 U	55 U	22 U	22 U	10 U
	Hexachlorobutadiene	11 U	11 U	55 U	22 U	22 U	10 U
	Hexachlorocyclopentadiene	11 U	11 U	55 U	22 U	22 U	10 U
	2-Chloronaphthalene	11 U	11 U	55 U	22 U	22 U	10 U
	Dimethylphthalate	11 U	11 U	55 U	22 U	22 U	10 U
	Acenaphthylene	11 U	11 U	55 U	22 U	22 U	10 U
	2,6-Dinitrotoluene	11 U	11 U	55 U	22 U	22 U	10 U
	Acenaphthene	11 U	11 U	55 U	80 %	81 %	10 U
	2,4-Dinitrotoluene	11 U	11 U	55 U	68 %	74 %	10 U
	Diethylphthalate	11 U	11 U	55 U	22 U	22 U	10 U
	4-Chlorophenyl-phenylether	11 U	11 U	55 U	22 U	22 U	10 U
	Fluorene	11 U	11 U	55 U	22 U	22 U	10 U
	N-Nitrosodiphenylamine (1)	11 U	11 U	55 U	22 U	22 U	10 U
	4-Bromophenyl-phenylether	11 U	11 U	55 U	22 U	22 U	10 U
	Hexachlorobenzene	11 U	11 U	55 U	22 U	22 U	10 U
	Phenanthrene	11 U	11 U	55 U	22 U	22 U	10 U
	Anthracene	11 U	11 U	55 U	22 U	22 U	10 U
	Di-n-Butylphthalate	11 U	11 U	55 U	4 J	22 U	10 U

\*= Outside of EPA CLP QC limits.

RFW Batch Number:	9301L306	Client:	LE CARPENTER	Work Order:	6720-02-15-0300	Page:	1b
Cust ID:	FB-1	MW-110	MW-110	MW-110	MW-110	SBLK	
RFW#:	005	007	007 DL	007 MS	007 MSD	93LE0084-MB1	
Fluoranthene	11 U	11 U	55 U	22 U	22 U	10 U	
Pyrene	11 U	11 U	55 U	90 %	97 %	10 U	
Butylbenzylphthalate	11 U	11 U	55 U	22 U	22 U	10 U	
3,3'-Dichlorobenzidine	22 U	22 U	110 U	44 U	44 U	20 U	
Benzo(a)anthracene	11 U	11 U	55 U	22 U	22 U	10 U	
Chrysene	11 U	11 U	55 U	22 U	22 U	10 U	
bis(2-Ethylhexyl)phthalate	2 JB	920 E	820 BD	740 E	410 E	0.8 J	
Di-n-Octyl phthalate	11 U	11 U	55 U	22 U	22 U	10 U	
Benzo(b)fluoranthene	11 U	11 U	55 U	22 U	22 U	10 U	
Benzo(k)fluoranthene	11 U	11 U	55 U	22 U	22 U	10 U	
Benzo(a)pyrene	11 U	11 U	55 U	22 U	22 U	10 U	
Indeno(1,2,3-cd)pyrene	11 U	11 U	55 U	22 U	22 U	10 U	
Dibenzo(a,h)anthracene	11 U	11 U	55 U	22 U	22 U	10 U	
Benzo(g,h,i)perylene	11 U	11 U	55 U	22 U	22 U	10 U	
N-Nitrosodimethylamine	11 U	11 U	55 U	22 U	22 U	10 U	
Benzidine	55 U	55 U	280 U	110 U	110 U	50 U	

(1) - Cannot be separated from Diphenylamine. \*= Outside of EPA CLP QC limits.

RFW Batch Number: 9301L306

**Client: LE CARPENTER**

Work Order: 6720-02-15-0300 Page: 2a

Cust ID: SBLK BS

**Sample Information** RFW#: 93LE0084-MB1  
Matrix: WATER  
D.F.: 1.00  
Units: ug/L

\*= Outside of EPA CLP QC limits.

Cust ID: SBLK BS

RFW#: 93LE0084-MB1

Fluoranthene	10	U
Pyrene	97	%
Butylbenzylphthalate	10	U
3,3'-Dichlorobenzidine	20	U
Benzo(a)anthracene	10	U
Chrysene	10	U
bis(2-Ethylhexyl)phthalate	10	U
Di-n-Octyl phthalate	10	U
Benzo(b)fluoranthene	10	U
Benzo(k)fluoranthene	10	U
Benzo(a)pyrene	10	U
Indeno(1,2,3-cd)pyrene	10	U
Dibenzo(a,h)anthracene	10	U
Benzo(g,h,i)perylene	10	U
N-Nitrosodimethylamine	10	U
Benzidine	50	U

(1) - Cannot be separated from Diphenylamine. \*= Outside of EPA CLP QC limits.

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**CASE NARRATIVE**



000000  
ROY F. WESTON, INC.  
LIONVILLE ANALYTICAL LABORATORY  
ANALYTICAL CASE NARRATIVE

Client: LE CARPENTER  
RFW #: 9301L306

W.O. #: 06720-002-015-3000-00  
Date Received: 01-15-93

**SEMIVOLATILE**

The set of samples consisted of two (2) water samples collected on 01-14-93.

The samples were extracted on 01-20-93 and analyzed according to criteria set forth in EPA Method 625 for Priority Pollutant Base Neutral target compounds on 02-09,12-93.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analyses:

1. Non-target compounds were detected in these samples.
2. Sample MW-110 required a five-fold dilution because it contained high levels of target compounds.
3. One (1) of twenty-one (21) surrogate recoveries was outside EPA QC limits; however, EPA CLP surrogate recovery criteria were met (i.e., no more than one outlier per fraction {base neutral} and no recoveries less than 10%).
4. All matrix spike recoveries were within EPA QC limits.
5. All blank spike recoveries were within EPA QC limits.
6. The laboratory blank contained the common contaminant Bis(2-ethylhexyl)phthalate at a level less than the CRQL.
7. All internal standard area and retention time criteria were met.

J. Peter Hershey, Ph.D.  
Laboratory Manager  
Lionville Analytical Laboratory

02-18-93

Date

**GLOSSARY OF BNA DATA****DATA QUALIFIERS**

**U** = Compound was analyzed for but not detected. The associated numerical value is the estimated sample quantitation limit which is included and corrected for dilution and percent moisture.

**J** = Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero; for example, if the limit of detection is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.

**B** = This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination. This flag is also used for a TIC as well as for a positively identified TCL compound.

**E** = Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.

**I** = Interference.

**X** = Additional qualifiers used as required are explained in the case narrative.

**NQ** = Result qualitatively confirmed but not able to quantify.

**ABBREVIATIONS**

**BS** = Indicates blank spike in which reagent grade water is spiked with the CLP matrix spike solutions and carried through all the steps in the method. Spike recoveries are reported.

**BSD** = Indicates blank spike duplicate.

**MS** = Indicates matrix spike.

**MSD** = Indicates matrix spike duplicate.

**DL** = Indicates that surrogate recoveries were not obtained because the extract had to be diluted for analysis.

**NA** = Not Applicable.

**DF** = Dilution Factor.

**NR** = Not Required.

**SP** = Indicates Spiked Compound.

0000011

**III. QC SUMMARY**

- A. SURROGATE & RECOVERY SUMMARY  
(FORM 2)**
- B. MATRIX SPIKE  
(FORM 3)**
- C. REAGENT BLANK SUMMARY  
(FORM 4)**
- D. GC/MS TUNING AND CALIBRATION STANDARD  
(FORM 5)**
- E. INTERNAL STANDARD SUMMARY  
(FORM 8) (IF APPLICABLE)**

0000012

**2C**

**WATER SEMIVOLATILE SURROGATE RECOVERY**

Lab Name: Roy F. Weston, Inc.

**Contract:** 6720-02-15

**Case No.:** LE CARPENTER

**RFW Lot No.:** 9301L306

CLIENT SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 ( ) #	S5 ( ) #	S6 ( ) #	OTHER	TOT OUT
01 FB-1	65	58	56					0
02 MW-110	67	57	30 *					1
03 MW-110DL	56	59	33					0
04 MW-110MS	67	57	44					0
05 MW-110MSD	67	57	65					0
06 SBLKLE0084-MB1	67	55	71					0
07 SBLKLE0084-MB1 BS	64	56	73					0

## QC LIMITS

S1 (NBZ) = Nitrobenzene-d5 ( 35-114)

S2 (FBP) = 2-Fluorobiphenyl (43-116)

S3 (TPH) = p-Terphenyl-d14 ( 33-141)

# Column to be used to flag recovery values

\* Values outside of QC limits

#### D Surrogates diluted out

3C

## WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Roy F. Weston, Inc.Contract: 6720-02-15Case No.: LE CARPENTERRFW Lot No.: 9301L306-007MATRIX Spike - Sample No.: MW-110Level: (low/med) LOW

COMPOUND	SPIKE ADDED UG/L	SAMPLE CONCENTRATION UG/L	MS CONCENTRATION UG/L	MS % REC #	QC LIMITS REC
1,4-Dichlorobenzene	110	0	67.3	61	36 - 97
N-Nitroso-Di-n-propylamine	110	0	77.0	70	41 - 116
1,2,4-Trichlorobenzene	110	0	83.4	76	39 - 98
Acenaphthene	110	0	88.3	80	46 - 118
2,4-Dinitrotoluene	110	0	75.1	68	24 - 96
Pyrene	110	0	98.5	90	26 - 127

COMPOUND	SPIKE ADDED UG/L	MSD CONCENTRATION UG/L	MSD % REC #	% RPD #	QC LIMITS RPD	REC
1,4-Dichlorobenzene	110	66.9	61	0	28	36 - 97
N-Nitroso-Di-n-propylamine	110	80.9	74	5	38	41 - 116
1,2,4-Trichlorobenzene	110	86.7	79	3	28	39 - 98
Acenaphthene	110	89.3	81	1	31	46 - 118
2,4-Dinitrotoluene	110	81.3	74	8	38	24 - 96
Pyrene	110	107	97	7	31	26 - 127

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

RPD: 0 out of 6 outside limitsSpike Recovery: 0 out of 12 outside limits

COMMENTS:

0000012

3C  
WATER SEMIVOLATILE BLANK SPIKE RECOVERY

Lab Name: Roy F. Weston, Inc.Contract: 6720-02-15Case No.: LE CARPENTERRFW Lot No.: 9301L306BLANK Spike - Sample No.: SBLKLE0084-MB1Level: (low/med) LOW

COMPOUND	SPIKE	SAMPLE	BS	BS	QC
	ADDED	CONCENTRATION	CONCENTRATION	% REC #	LIMITS REC
	UG/L	UG/L	UG/L		
1,4-Dichlorobenzene	50.0	0	31.0	62	36 - 97
N-Nitroso-Di-n-propylamine	50.0	0	37.6	75	41 -116
1,2,4-Trichlorobenzene	50.0	0	37.6	75	39 - 98
Acenaphthene	50.0	0	37.2	74	46 -118
2,4-Dinitrotoluene	50.0	0	37.0	74	24 - 96
Pyrene	50.0	0	48.7	97	26 -127

# Column to be used to flag recovery value with an asterisk

\* Values outside of QC limits

Spike Recovery: 0 out of 6 outside limits

COMMENTS:

0000015

4B

## SEMOVOLATILE METHOD BLANK SUMMARY

Lab Name: Roy F. Weston, Inc.Contract: 6720-02-15Case No.: LE CARPENTERLab File ID: A020908Lab Sample ID: 93LE0084-MB1Date Extracted: 01/20/93Extraction: (SepF/Cont/Sonc) CONTDate Analyzed: 02/09/93Time Analyzed: 1435Matrix: (Soil/Water) WATERLevel: (low/med) LOWInstrument ID: HP5971A

## THIS METHOD

BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01 SBLKLE0084-MB1 BS	93LE0084-MB1S	A020909	02/09/93
02 FB-1	9301L306-005	A020910	02/09/93
03 MW-110	9301L306-007	A020911	02/09/93
04 MW-110MS	9301L306-007S	A020912	02/09/93
05 MW-110MSD	9301L306-007T	A020913	02/09/93
06 MW-110DL	9301L306-007	A021203	02/12/93

COMMENTS:

0000016  
5BSEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)Lab Name: Roy F. Weston, Inc.Contract: 6720-02-15Case No.: LE CARPENTERLab File ID: A020401DFTPP Injection Date: 02/04/93Instrument ID: HP5971ADFTPP Injection Time: 0859

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	53.0
68	Less than 2.0% of mass 69	0.0( 0.0)1
69	Mass 69 relative abundance	62.0
70	Less than 2.0% of mass 69	0.0( 0.0)1
127	40.0 - 60.0% of mass 198	47.9
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 30.0% of mass 198	19.8
365	Greater than 1.00% of mass 198	2.47
441	Present, but less than mass 443	7.0
442	Greater than 40.0% of mass 198	44.6
443	17.0 - 23.0% of mass 442	9.0( 20.2)2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01 SSTD50	SSTD50	A020403	02/04/93	1009
02 SSTD20	SSTD20	A020404	02/04/93	1059
03 SSTD80	SSTD80	A020405	02/04/93	1146
04 SSTD120	SSTD120	A020406	02/04/93	1234
05 SSTD160	SSTD160	A020407	02/04/93	1322
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

0000017

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Roy F. Weston, Inc.Contract: 6720-02-15Case No.: LE CARPENTERLab File ID: A020901DFTPP Injection Date: 02/09/93Instrument ID: HP5971ADFTPP Injection Time: 0836

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	53.0
68	Less than 2.0% of mass 69	0.0( 0.0)1
69	Mass 69 relative abundance	62.7
70	Less than 2.0% of mass 69	1.0( 1.6)1
127	40.0 - 60.0% of mass 198	49.7
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 30.0% of mass 198	21.2
365	Greater than 1.00% of mass 198	2.02
441	Present, but less than mass 443	10.0
442	Greater than 40.0% of mass 198	63.7
443	17.0 - 23.0% of mass 442	13.1( 20.6)2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01 SSTD50	SSTD50	A020902	02/09/93	0917
02 SBLKLE0084-MB1	93LE0084-MB1	A020908	02/09/93	1435
03 SBLKLE0084-MB1 BS	93LE0084-MB1S	A020909	02/09/93	1524
04 FB-1	9301L306-005	A020910	02/09/93	1613
05 MW-110	9301L306-007	A020911	02/09/93	1701
06 MW-110MS	9301L306-007S	A020912	02/09/93	1750
07 MW-110MSD	9301L306-007T	A020913	02/09/93	1838
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

5B 0000018

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Roy F. Weston, Inc.Contract: 6720-02-15Case No.: LE CARPENTERLab File ID: A021201DFTPP Injection Date: 02/12/93Instrument ID: HP5971ADFTPP Injection Time: 0806

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	59.3
68	Less than 2.0% of mass 69	0.0( 0.0)1
69	Mass 69 relative abundance	66.2
70	Less than 2.0% of mass 69	0.0( 0.0)1
127	40.0 - 60.0% of mass 198	48.7
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.1
275	10.0 - 30.0% of mass 198	19.2
365	Greater than 1.00% of mass 198	1.58
441	Present, but less than mass 443	7.5
442	Greater than 40.0% of mass 198	47.9
443	17.0 - 23.0% of mass 442	8.8( 18.4)2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01 SSTD50	SSTD50	A021202	02/12/93	0901
02 MW-110DL	9301L306-007	A021203	02/12/93	0957
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

8B

## SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: Roy F. Weston, Inc.Contract: 6720-02-15Case No.: LE CARPENTERRFW Lot: 9301L306Lab File ID (Standard): A020902Date Analyzed: 02/09/93Instrument ID: HP5971ATime Analyzed: 0917

	IS1(DCB) AREA #	RT	IS2(NPT) AREA #	RT	IS3(ANT) AREA #	RT
12 HOUR STD	129933	9.81	393498	12.87	157998	17.28
UPPER LIMIT	259866	10.31	786996	13.37	315996	17.78
LOWER LIMIT	64967	9.31	196749	12.37	78999	16.78
CLIENT SAMPLE NO.						
01 FB-1	113592	9.79	355800	12.86	142597	17.26
02 MW-110	106088	9.79	324906	12.86	136583	17.26
03 MW-110MS	110984	9.79	338527	12.86	141106	17.26
04 MW-110MSD	113869	9.79	342873	12.86	139591	17.26
05 SBLKLE0084-MB1	132701	9.79	419348	12.86	166213	17.26
06 SBLKLE0084-MB1 BS	124876	9.79	400449	12.85	165432	17.26

IS1 (DCB) = 1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%

IS2 (NPT) = Naphthalene-d8

of internal standard area.

IS3 (ANT) = Acenaphthene-d10

LOWER LIMIT = - 50%

of internal standard area.

# Column used to flag internal standard area values with an asterisk

0000020

8C

## SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: Roy F. Weston, Inc.Contract: 6720-02-15Case No.: LE CARPENTERRFW Lot: 9301L306Lab File ID (Standard): A020902Date Analyzed: 02/09/93Instrument ID: HP5971ATime Analyzed: 0917

	IS4(PHN) AREA #	RT	IS5(CRY) AREA #	RT	IS6(PRY) AREA #	RT
12 HOUR STD	260300	20.49	249194	25.39	222543	30.95
UPPER LIMIT	520600	20.99	498388	25.89	445086	31.45
LOWER LIMIT	130150	19.99	124597	24.89	111272	30.45
CLIENT SAMPLE NO.						
01 FB-1	237632	20.48	223078	25.37	202540	30.92
02 MW-110	240450	20.48	251131	25.38	226986	30.92
03 MW-110MS	245438	20.49	240276	25.38	217014	30.93
04 MW-110MSD	233959	20.49	231891	25.38	211310	30.92
05 SBLKLE0084-MB1	277642	20.48	259524	25.37	243031	30.91
06 SBLKLE0084-MB1 BS	291591	20.48	278797	25.38	252174	30.93

IS4 (PHN) = Phenanthrene-d10

UPPER LIMIT = + 100%

IS5 (CRY) = Chrysene-d12

of internal standard area.

IS6 (PRY) = Perylene-d12

LOWER LIMIT = - 50%

of internal standard area.

# Column used to flag internal standard area values with an asterisk

8B  
SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: Roy F. Weston, Inc.Contract: 6720-02-15Case No.: LE CARPENTERRFW Lot: 9301L306Lab File ID (Standard): A021202Date Analyzed: 02/12/93Instrument ID: HP5971ATime Analyzed: 0901

	IS1(DCB) AREA #	RT	IS2(NPT) AREA #	RT	IS3(ANT) AREA #	RT
12 HOUR STD	133465	9.82	394465	12.89	167882	17.29
UPPER LIMIT	266930	10.32	788930	13.39	335764	17.79
LOWER LIMIT	66733	9.32	197233	12.39	83941	16.79
CLIENT SAMPLE NO.						
01 MW-110DL	122644	9.82	388898	12.88	159908	17.29

IS1 (DCB) = 1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%

IS2 (NPT) = Naphthalene-d8

of internal standard area.

IS3 (ANT) = Acenaphthene-d10

LOWER LIMIT = - 50%

of internal standard area.

# Column used to flag internal standard area values with an asterisk

0000022

8C  
SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: Roy F. Weston, Inc.Contract: 6720-02-15Case No.: LE CARPENTERRFW Lot: 9301L306Lab File ID (Standard): A021202Date Analyzed: 02/12/93Instrument ID: HP5971ATime Analyzed: 0901

	IS4(PHN) AREA #	RT	IS5(CRY) AREA #	RT	IS6(PRY) AREA #	RT
12 HOUR STD	261713	20.50	262895	25.41	218928	30.98
UPPER LIMIT	523426	21.00	525790	25.91	437856	31.48
LOWER LIMIT	130857	20.00	131448	24.91	109464	30.48
CLIENT SAMPLE NO.						
01 MW-110DL	237751	20.50	234410	25.40	205856	30.97

IS4 (PHN) = Phenanthrene-d10

UPPER LIMIT = + 100%

IS5 (CRY) = Chrysene-d12

of internal standard area.

IS6 (PRY) = Perylene-d12

LOWER LIMIT = - 50%

of internal standard area.

# Column used to flag internal standard area values with an asterisk

**III. SAMPLE DATA PACKAGE****A. SAMPLE DATA IN ORDER OF RFW SAMPLE NUMBER**

1. TABULATED RESULTS  
(FORM 1)
2. TENTATIVELY IDENTIFIED COMPOUND  
(FORM 1E)
3. RAW DATA IN ORDER:
  - a. RECONSTRUCTED ION CHROMATOGRAM(S)
  - b. QUANTITATION REPORT(S)
  - c. HSL MASS SPECTRA
  - d. TIC MASS SPECTRA
  - e. GC/MS LIBRARY SEARCH FOR TIC

## SEMOVOLATILE ORGANICS ANALYSIS SHEET

FB-1

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0300Client: LE CARPENTERMatrix: WATERLab Sample ID: 9301L306-005Sample wt/vol: 890 (g/mL) MLLab File ID: A020910Level: (low/med) LOWDate Received: 01/15/93

% Moisture: not dec. \_\_\_\_\_ dec. \_\_\_\_\_

Date Extracted: 01/20/93Extraction: (SepF/Cont/Sonc) CONTDate Analyzed: 02/09/93GPC Cleanup: (Y/N) NpH: 7.0Dilution Factor: 1.00

## CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L

111-44-4-----	bis(2-Chloroethyl)ether	11	U
541-73-1-----	1,3-Dichlorobenzene	11	U
106-46-7-----	1,4-Dichlorobenzene	11	U
95-50-1-----	1,2-Dichlorobenzene	11	U
108-60-1-----	bis(2-Chloroisopropyl)ether	11	U
621-64-7-----	N-Nitroso-Di-n-propylamine	11	U
67-72-1-----	Hexachloroethane	11	U
98-95-3-----	Nitrobenzene	11	U
78-59-1-----	Isophorone	11	U
111-91-1-----	bis(2-Chloroethoxy)methane	11	U
120-82-1-----	1,2,4-Trichlorobenzene	11	U
91-20-3-----	Naphthalene	11	U
87-68-3-----	Hexachlorobutadiene	11	U
77-47-4-----	Hexachlorocyclopentadiene	11	U
91-58-7-----	2-Chloronaphthalene	11	U
131-11-3-----	Dimethylphthalate	11	U
208-96-8-----	Acenaphthylene	11	U
606-20-2-----	2,6-Dinitrotoluene	11	U
83-32-9-----	Acenaphthene	11	U
121-14-2-----	2,4-Dinitrotoluene	11	U
84-66-2-----	Diethylphthalate	11	U
7005-72-3-----	4-Chlorophenyl-phenylether	11	U
86-73-7-----	Fluorene	11	U
86-30-6-----	N-Nitrosodiphenylamine (1)	11	U
101-55-3-----	4-Bromophenyl-phenylether	11	U
118-74-1-----	Hexachlorobenzene	11	U
85-01-8-----	Phenanthrene	11	U
120-12-7-----	Anthracene	11	U
84-74-2-----	Di-n-Butylphthalate	11	U
206-44-0-----	Fluoranthene	11	U
129-00-0-----	Pyrene	11	U
85-68-7-----	Butylbenzylphthalate	11	U
91-94-1-----	3,3'-Dichlorobenzidine	22	U

## SEMOVOLATILE ORGANICS ANALYSIS SHEET

FB-1

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0300Client: LE CARPENTERMatrix: WATERLab Sample ID: 9301L306-005Sample wt/vol: 890 (g/mL) MLLab File ID: A020910Level: (low/med) LOWDate Received: 01/15/93

% Moisture: not dec. \_\_\_\_\_ dec.

Date Extracted: 01/20/93Extraction: (SepF/Cont/Sonc) CONTDate Analyzed: 02/09/93GPC Cleanup: (Y/N) N pH: 7.0Dilution Factor: 1.00

## CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L

56-55-3-----	Benzo(a)anthracene	11	U
218-01-9-----	Chrysene	11	U
117-81-7-----	bis(2-Ethylhexyl)phthalate	2	JB
117-84-0-----	Di-n-Octyl phthalate	11	U
205-99-2-----	Benzo(b)fluoranthene	11	U
207-08-9-----	Benzo(k)fluoranthene	11	U
50-32-8-----	Benzo(a)pyrene	11	U
193-39-5-----	Indeno(1,2,3-cd)pyrene	11	U
53-70-3-----	Dibenzo(a,h)anthracene	11	U
191-24-2-----	Benzo(g,h,i)perylene	11	U
62-75-9-----	N-Nitrosodimethylamine	11	U
92-87-5-----	Benzidine	55	U

(1) - Cannot be separated from Diphenylamine

FORM 1 SV-2

12/88 Rev.

1F

0000025

CLIENT SAMPLE NO.

**SEMIVOLATILE ORGANICS ANALYSIS SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS**

FB-1

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0300Client: LE CARPENTERMatrix: WATER Lab Sample ID: 9301L306-005Sample wt/vol: 890 (g/mL) ML Lab File ID: A020910Level: (low/med) LOW Date Received: 01/15/93% Moisture: not dec. \_\_\_\_\_ dec. Date Extracted: 01/20/93Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 02/09/93GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

## CONCENTRATION UNITS:

Number TICs found: 2 (ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	15.19	9	JB
2.	UNKNOWN	15.41	20	JB

0000027  
QUANT REPORT

Operator ID: TAS Date Acquired: 9 Feb 93 4:13 pm

Data File: C:\CHEMPC\DATA\A020910.D

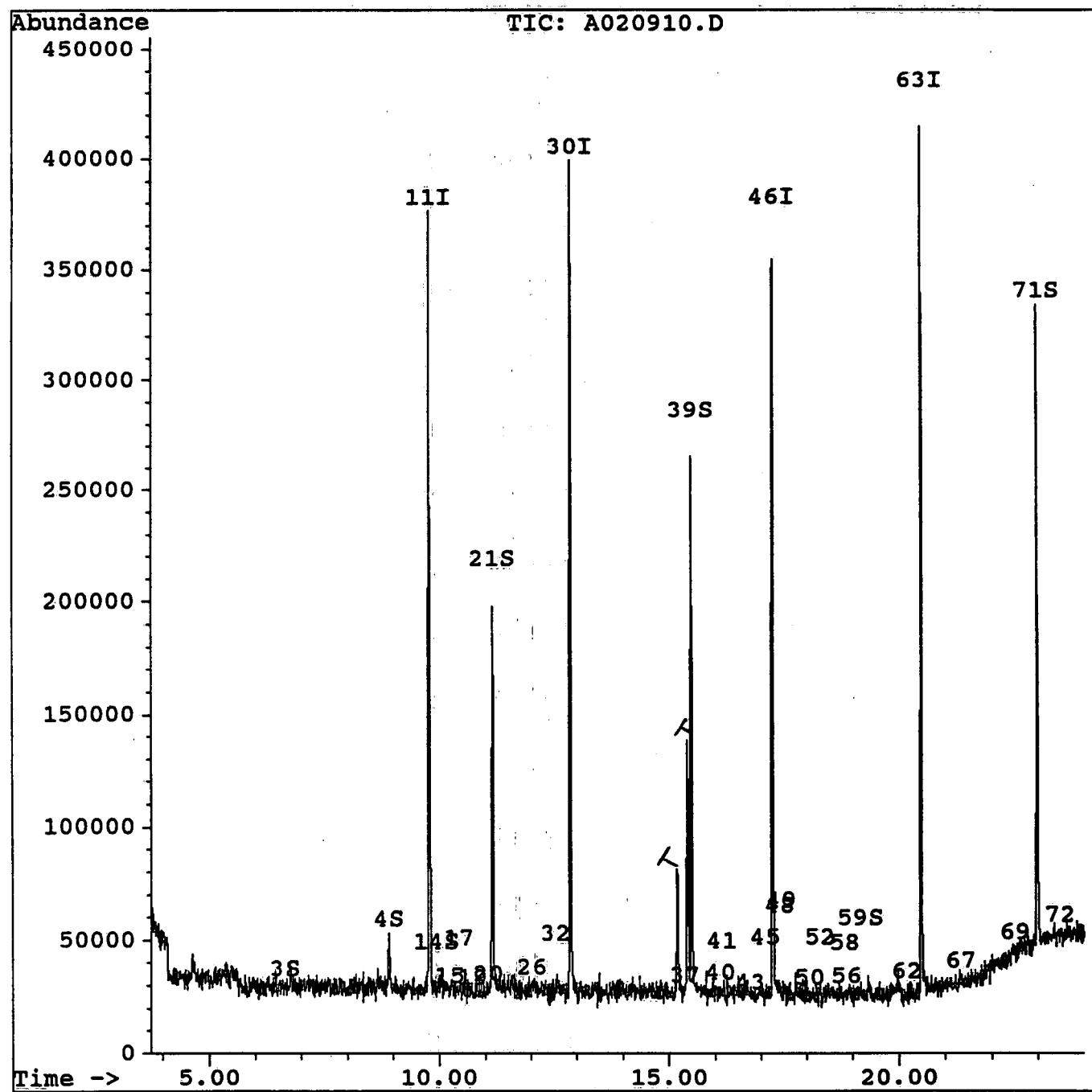
Name: 9301L306-005 LE CARPENTER

Misc: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CCL

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration



000028

QUANT REPORT

Operator ID: TAS Date Acquired: 9 Feb 93 4:13 pm

Data File: C:\CHEMPC\DATA\A020910.D

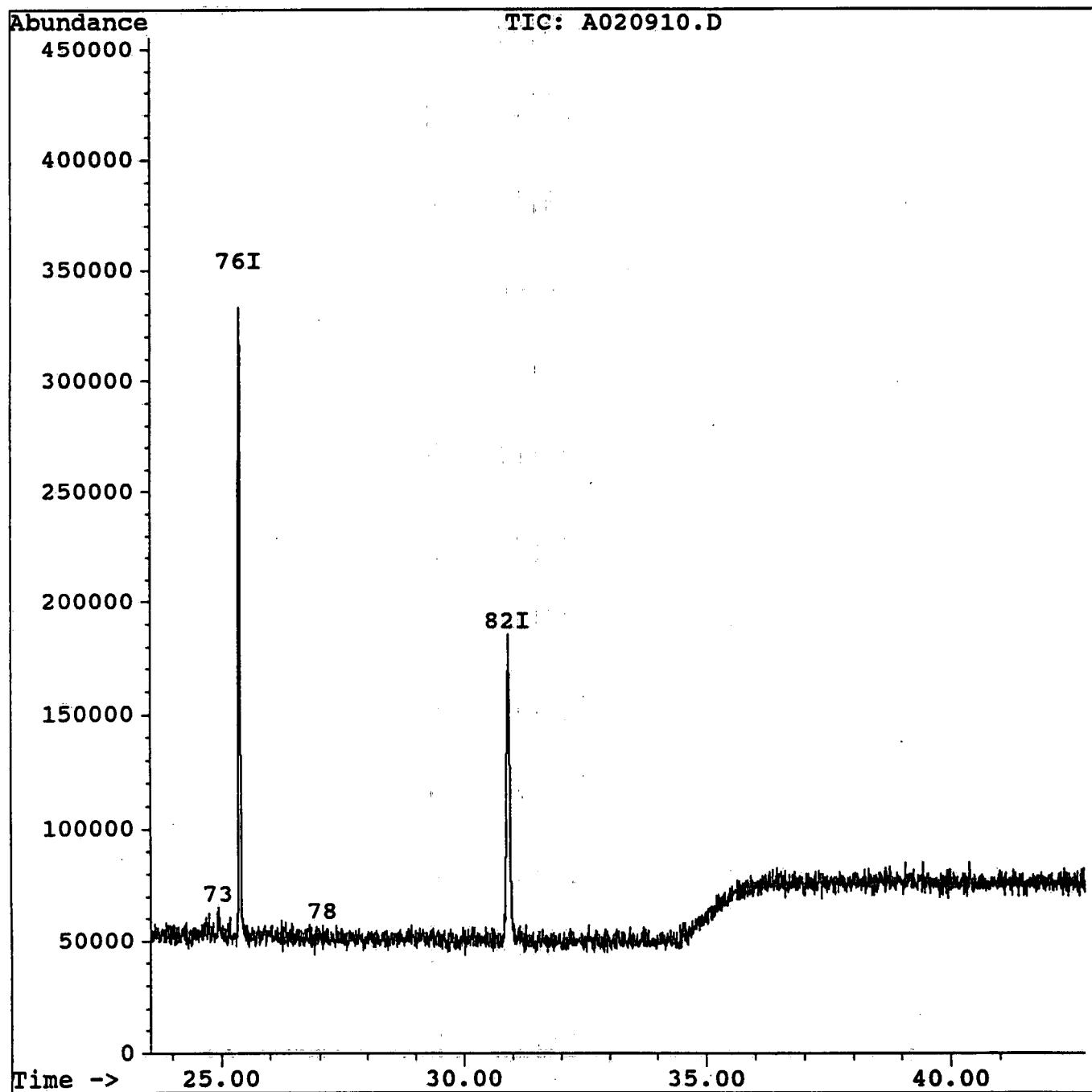
Name: 9301L306-005 LE CARPENTER

Misc: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CCL

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration



0000020

## QUANT REPORT

Operator ID: TAS Date Acquired: 9 Feb 93 4:13 pm

Data File: C:\CHEMPC\DATA\A020910.D

Name: 9301L306-005 LE CARPENTER

Misc: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CCL

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration

## Internal Standards

	Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
11)	1,4-Dichlorobenzene-d4	9.79	152	113592✓	40.00	ul/l	-0.01
30)	Naphthalene-d8	12.86	136	355800✓	40.00	ul/l	-0.01
46)	Acenaphthene-d10	17.26	164	142597✓	40.00	ul/l	-0.01
63)	Phenanthrene-d10	20.48	188	237632✓	40.00	ul/l	-0.01
76)	Chrysene-d12	25.37	240	223078✓	40.00	ul/l	-0.02
82)	Perylene-d12	30.92	264	202540✓	40.00	ul/l	-0.03

## Surrogate Compounds

					%Recovery
3)	2-Fluorophenol	6.64	112	537	0.13 ul/l
4)	Phenol-d5	8.91	99	14376	3.41 ul/l
8)	2-Chlorophenol-d4	9.32	132	159	0.04 ul/l
14)	1,2-Dichlorobenzene-d4	9.94	152	741	0.31 ul/l
21)	Nitrobenzene-d5	11.16	82	104805	32.44 ul/l
39)	2-Fluorobiphenyl	15.49	172	139467	28.87 ul/l
59)	2,4,6-Tribromophenol	19.17	330	340	0.39 ul/l
71)	p-Terphenyl-d14	22.99	244	143053	27.96 ul/l

## Target Compounds

					ISTD#
15)	1,2-Dichlorobenzene	10.24	146	394	0.12 ul/l
17)	bis(2-Chloroisopropyl)ethane	10.43	45	1039	0.18 ul/l
19)	n-Nitroso-di-n-propylamine	10.74	70	150	0.12 ul/l
20)	Hexachloroethane	11.07	117	344	0.19 ul/l
26)	Benzoic Acid	12.02	122	142	0.12 ul/l
32)	4-Chloroaniline	12.53	127	394	0.12 ul/l
37)	2,4,6-Trichlorophenol	15.35	196	381	0.29 ul/l
40)	2-Chloronaphthalene	16.13	162	449	0.11 ul/l
41)	2-Nitroaniline	16.16	65	401	0.33 ul/l
43)	2,6-Dinitrotoluene	16.79	165	297	0.33 ul/l
45)	3-Nitroaniline	17.10	138	214	0.18 ul/l
48)	2,4-Dinitrophenol	17.43	184	128	0.37 ul/l
49)	4-Nitrophenol	17.46	109	114	0.22 ul/l
50)	Dibenzofuran	18.06	168	536	0.11 ul/l
52)	Diethylphthalate	18.29	149	758	0.18 ul/l
56)	4,6-Dinitro-2-methylphenol	18.86	198	375	0.65 ul/l
58)	1,2-Diphenylhydrazine	18.84	77	591	0.12 ul/l
62)	Pentachlorophenol	20.18	266	254	0.26 ul/l
67)	Di-n-butylphthalate	21.35	149	2979	0.40 ul/l
69)	Benzidine	22.50	184	123	0.16 ul/l
72)	Butylbenzylphthalate	23.51	149	894	0.30 ul/l
(73)	bis(2-Ethylhexyl)phthalate	24.95	149	6491	1.68 ul/l✓
78)	Di-n-octylphthalate	27.06	149	1209	0.18 ul/l

KD oallol13

(#) = qualifier out of range

0000030

## Tentatively Identified Compound (LSC) summary

Operator ID: TAS Date Acquired: 9 Feb 93 4:13 pm

Data File: C:\CHEMPC\DATA\A020910.D

Name: 9301L306-005 LE CARPENTER

Misc: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CCL

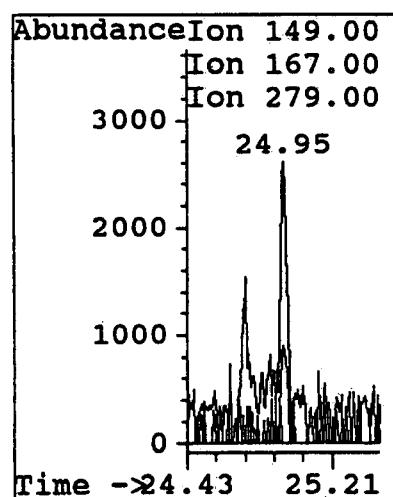
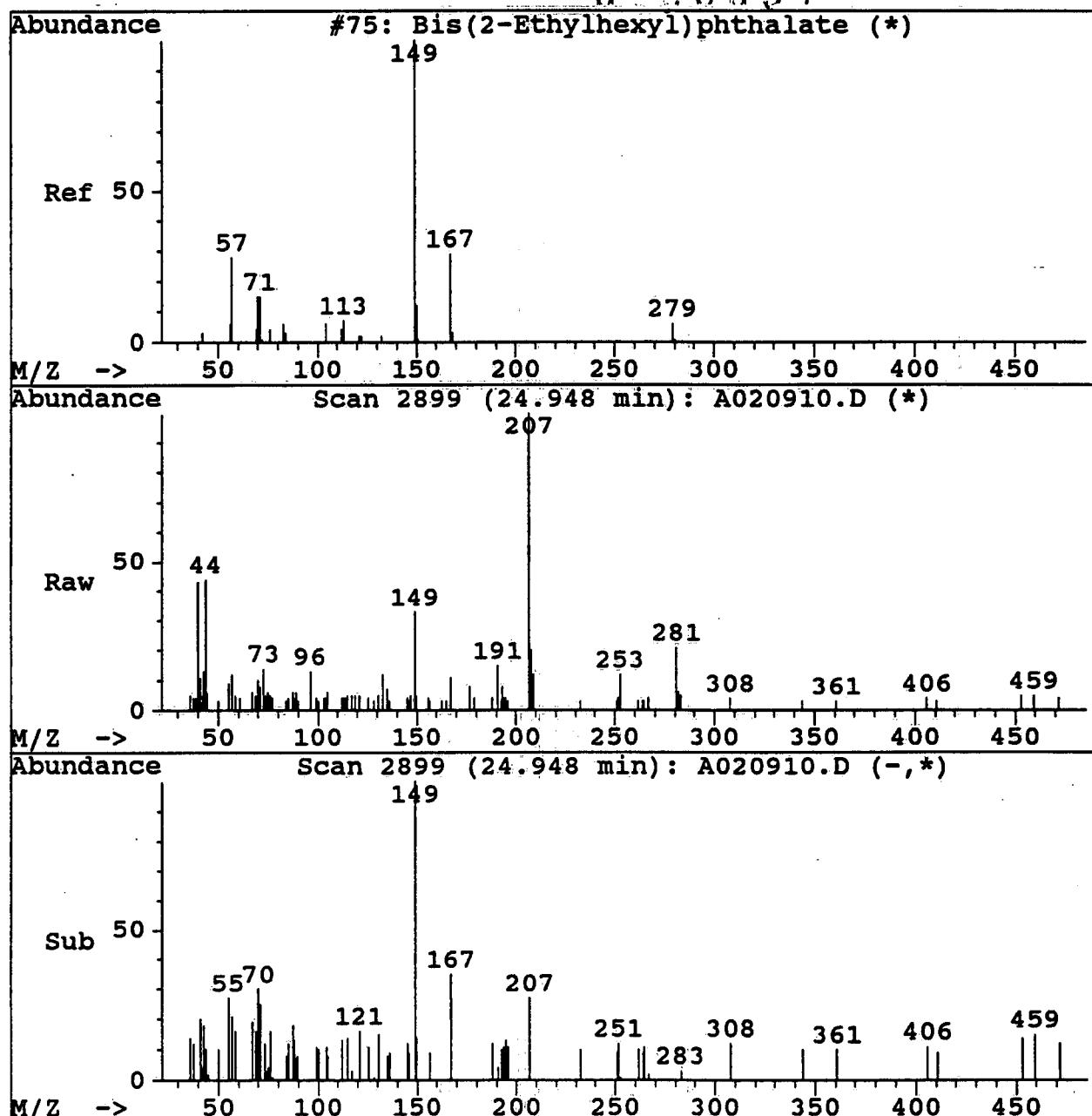
Method: 625RTE.M

Title: 625 RTE Integrated Report

Library Searched: nbs54k.l

TIC name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Propanoic acid, 2-me	15.19	7.9	ul/l	134129	ISTD03	17.26	681175	40.0
Butanoic acid, butyl	15.41	13.7	ul/l	233421	ISTD03	17.26	681175	40.0

0000031



Lab File: A020910.D Acq: 9 Feb 93 4:13 pm  
 Sample: 9301L306-005 LE CARPENTER  
 Misc : 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209

#73 bis(2-Ethylhexyl)phthalate  
 Concen: 1.68 ul/l  
 RT: 24.95 min Delta R.T. -0.01 min  
 Tgt Ion:149 Area: 6491

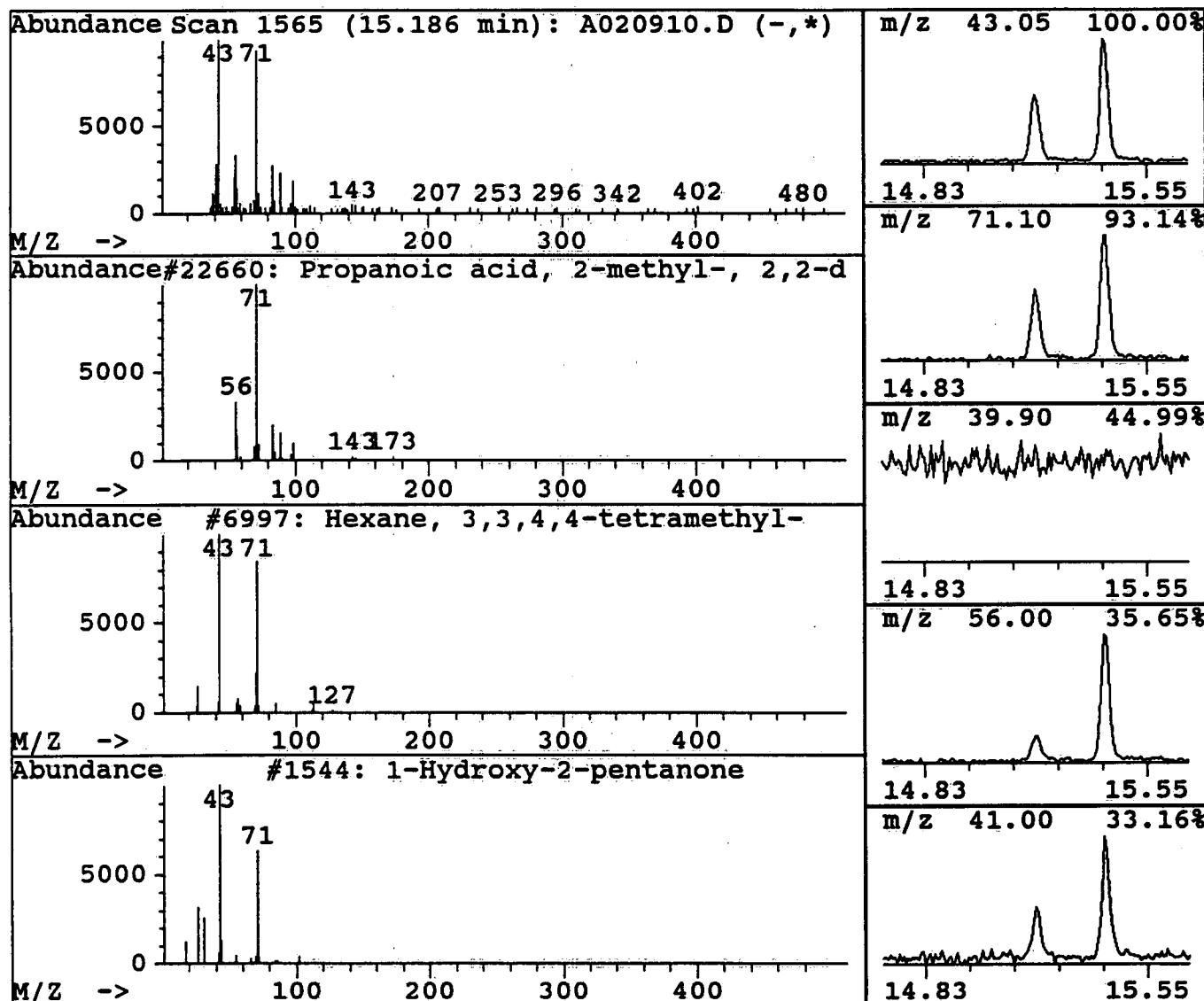
Ion	Ratio	Lower	Upper
149	100		
167	30.4	22.2	33.2
279	2.3	3.3	4.9#
0	0.0	0.0	0.0

0000032

Tentatively Identified Compound (LSC)  
 Operator ID: TAS Date Acquired: 9 Feb 93 4:13 pm  
 Data File: C:\CHEMPC\DATA\A020910.D  
 Name: 9301L306-005 LE CARPENTER  
 Misc: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CCL  
 Method: 625RTE.M  
 Title: 625 RTE Integrated Report

Library Searched: nbs54k.1

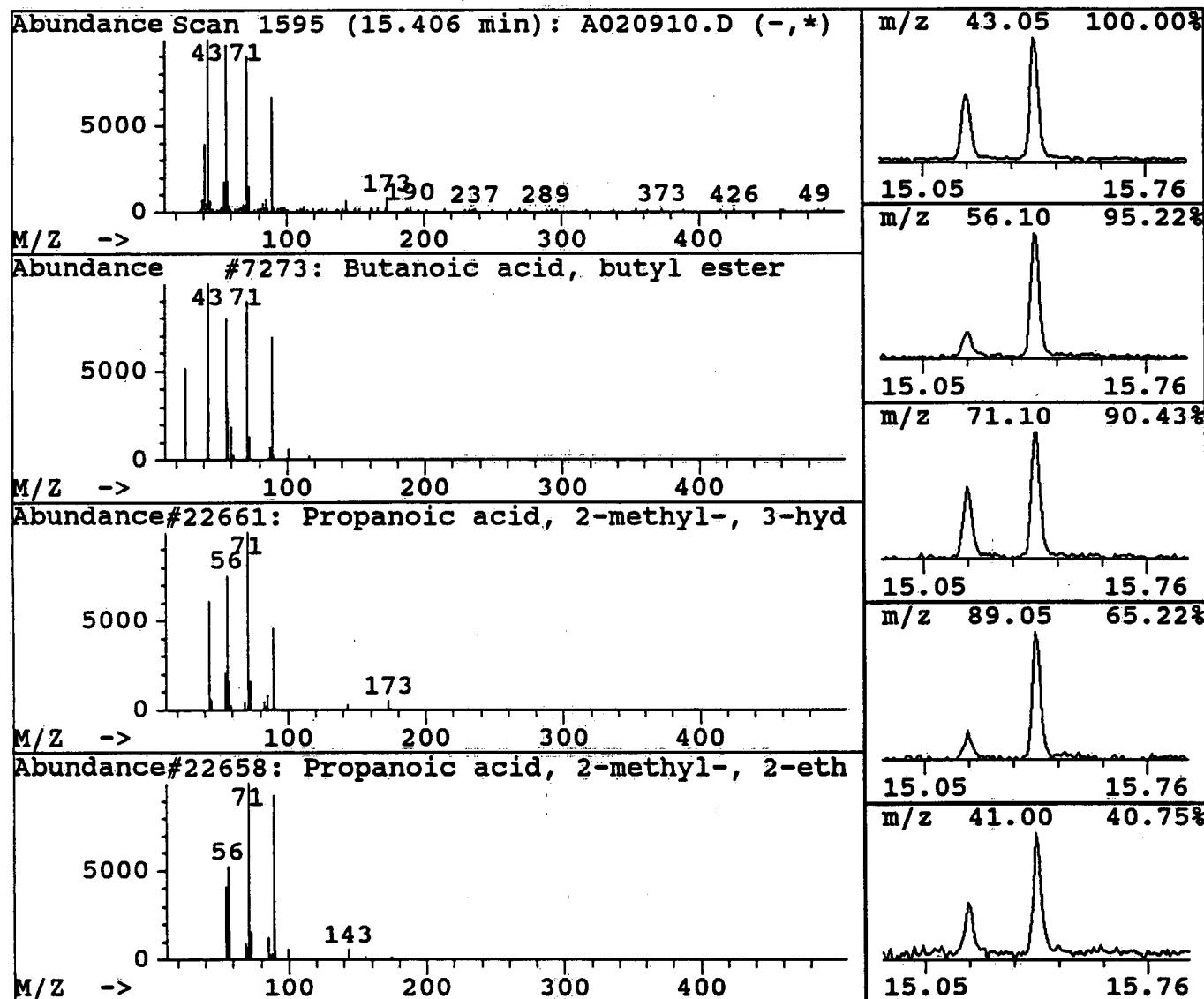
R.T.	Conc	Area	Relative to ISTD	R.T.
15.19	7.88 ul/l	134129	Acenaphthene-d10	17.26
Hit# of 20		Tentative ID	Ref#	Unknown ACID B
1	Propanoic acid, 2-methyl-, 2,2-dime		22660	074367-33-2 59
2	Hexane, 3,3,4,4-tetramethyl-		6997	005171-84-6 47
3	1-Hydroxy-2-pentanone		1544	064502-89-2 47
4	Cyclopentanol, 1-methyl-		1367	001462-03-9 47
5	Heptane, 5-ethyl-2-methyl-		7005	013475-78-0 47



Tentatively Identified Compound (LSC)  
 Operator ID: TAS Date Acquired: 9 Feb 93 4:13 pm  
 Data File: C:\CHEMPC\DATA\A020910.D  
 Name: 9301L306-005 LE CARPENTER  
 Misc: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CCL  
 Method: 625RTE.M  
 Title: 625 RTE Integrated Report

Library Searched: nbs54k.1

R.T.	Conc	Area	Relative to ISTD	R.T.	
15.41	13.71 ul/l	233421	Acenaphthene-d10	17.26	
				UNKNOWN ACID B	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Butanoic acid, butyl ester		7273	000109-21-7	78
2	Propanoic acid, 2-methyl-, 3-hydrox		22661	074367-34-3	50
3	Propanoic acid, 2-methyl-, 2-ethyl-		22658	074367-31-0	45
4	Butanoic acid, octyl ester		19468	000110-39-4	42
5	Pentane, 3-bromo-		8292	001809-10-5	25



## SEMIVOLATILE ORGANICS ANALYSIS SHEET

MW-110

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0300Client: LE CARPENTERMatrix: WATER Lab Sample ID: 9301L306-007Sample wt/vol: 890 (g/mL) ML Lab File ID: A020911Level: (low/med) LOW Date Received: 01/15/93% Moisture: not dec. \_\_\_\_\_ dec. Date Extracted: 01/20/93Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 02/09/93GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

## CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L

111-44-4-----bis(2-Chloroethyl)ether	11	u
541-73-1-----1,3-Dichlorobenzene	11	u
106-46-7-----1,4-Dichlorobenzene	11	u
95-50-1-----1,2-Dichlorobenzene	11	u
108-60-1-----bis(2-Chloroisopropyl)ether	11	u
621-64-7-----N-Nitroso-Di-n-propylamine	11	u
67-72-1-----Hexachloroethane	11	u
98-95-3-----Nitrobenzene	11	u
78-59-1-----Isophorone	11	u
111-91-1-----bis(2-Chloroethoxy)methane	11	u
120-82-1-----1,2,4-Trichlorobenzene	11	u
91-20-3-----Naphthalene	11	u
87-68-3-----Hexachlorobutadiene	11	u
77-47-4-----Hexachlorocyclopentadiene	11	u
91-58-7-----2-Chloronaphthalene	11	u
131-11-3-----Dimethylphthalate	11	u
208-96-8-----Acenaphthylene	11	u
606-20-2-----2,6-Dinitrotoluene	11	u
83-32-9-----Acenaphthene	11	u
121-14-2-----2,4-Dinitrotoluene	11	u
84-66-2-----Diethylphthalate	11	u
7005-72-3-----4-Chlorophenyl-phenylether	11	u
86-73-7-----Fluorene	11	u
86-30-6-----N-Nitrosodiphenylamine (1)	11	u
101-55-3-----4-Bromophenyl-phenylether	11	u
118-74-1-----Hexachlorobenzene	11	u
85-01-8-----Phenanthrene	11	u
120-12-7-----Anthracene	11	u
84-74-2-----Di-n-Butylphthalate	11	u
206-44-0-----Fluoranthene	11	u
129-00-0-----Pyrene	11	u
85-68-7-----Butylbenzylphthalate	11	u
91-94-1-----3,3'-Dichlorobenzidine	22	u

## SEMIVOLATILE ORGANICS ANALYSIS SHEET

MW-110

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0300Client: LE CARPENTERMatrix: WATERLab Sample ID: 9301L306-007Sample wt/vol: 890 (g/mL) MLLab File ID: A020911Level: (low/med) LOWDate Received: 01/15/93

% Moisture: not dec. \_\_\_\_\_ dec. \_\_\_\_\_

Date Extracted: 01/20/93Extraction: (SepF/Cont/Sonc) CONTDate Analyzed: 02/09/93GPC Cleanup: (Y/N) N pH: 7.0Dilution Factor: 1.00

## CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L

56-55-3-----	Benzo(a)anthracene	11	U
218-01-9-----	Chrysene	11	U
117-81-7-----	bis(2-Ethylhexyl)phthalate		E
117-84-0-----	Di-n-Octyl phthalate	11	U
205-99-2-----	Benzo(b)fluoranthene	11	U
207-08-9-----	Benzo(k)fluoranthene	11	U
50-32-8-----	Benzo(a)pyrene	11	U
193-39-5-----	Indeno(1,2,3-cd)pyrene	11	U
53-70-3-----	Dibenzo(a,h)anthracene	11	U
191-24-2-----	Benzo(g,h,i)perylene	11	U
62-75-9-----	N-Nitrosodimethylamine	11	U
92-87-5-----	Benzidine	55	U

(1) - Cannot be separated from Diphenylamine

FORM 1 SV-2

12/88 Rev.

1F  
SEMIVOLATILE ORGANICS ANALYSIS SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

0000035 CLIENT SAMPLE NO.

MW-110

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0300

Client: LE CARPENTER

Matrix: WATER

Lab Sample ID: 9301L306-007

Sample wt/vol: 890 (g/mL) ML

Lab File ID: A020911

Level: (low/med) LOW

Date Received: 01/15/93

% Moisture: not dec. \_\_\_\_\_ dec.

Date Extracted: 01/20/93

Extraction: (SepF/Cont/Sonc) CONT

Date Analyzed: 02/09/93

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.00

CONCENTRATION UNITS:

Number TICs found: 6

(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	FROM 26MIN THRU 29MIN			
2.	UNRESOLVED PHTHALATES			J
3.	UNKNOWN	15.19	6	JB
4.	UNKNOWN	24.60	4	J
5.	UNKNOWN	26.77	20	J
6.	UNKNOWN	28.00	10	J
7.	UNKNOWN	28.22	8	J
8.	UNKNOWN	28.38	6	J

## QUANT REPORT

Operator ID: TAS Date Acquired: 9 Feb 93 5:01 pm

Data File: C:\CHEMPC\DATA\A020911.D

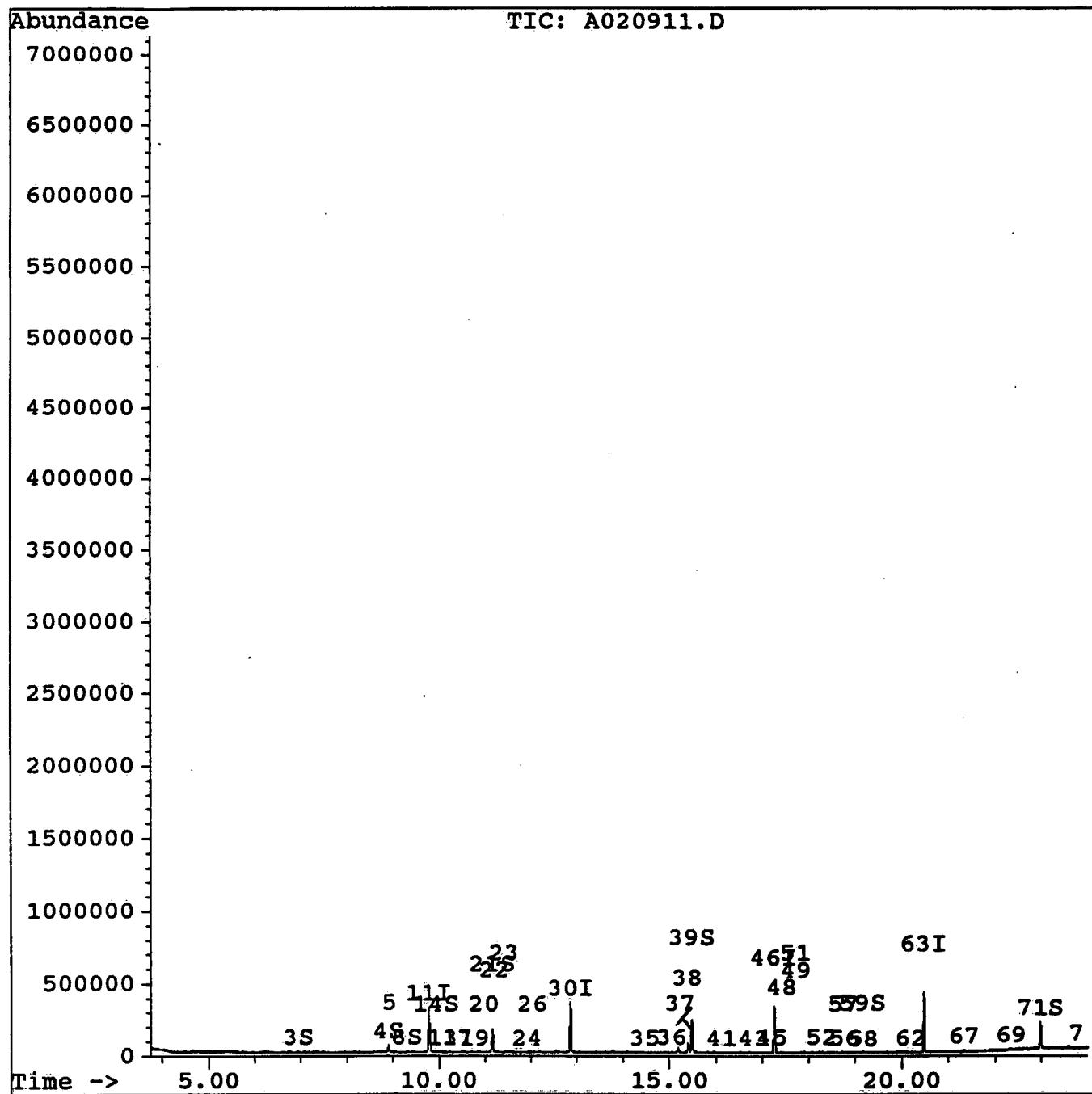
Name: 9301L306-007 LE CARPENTER

Misc: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CCL

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration



0000037

## QUANT REPORT

Operator ID: TAS Date Acquired: 9 Feb 93 5:01 pm

Data File: C:\CHEMPC\DATA\A020911.D

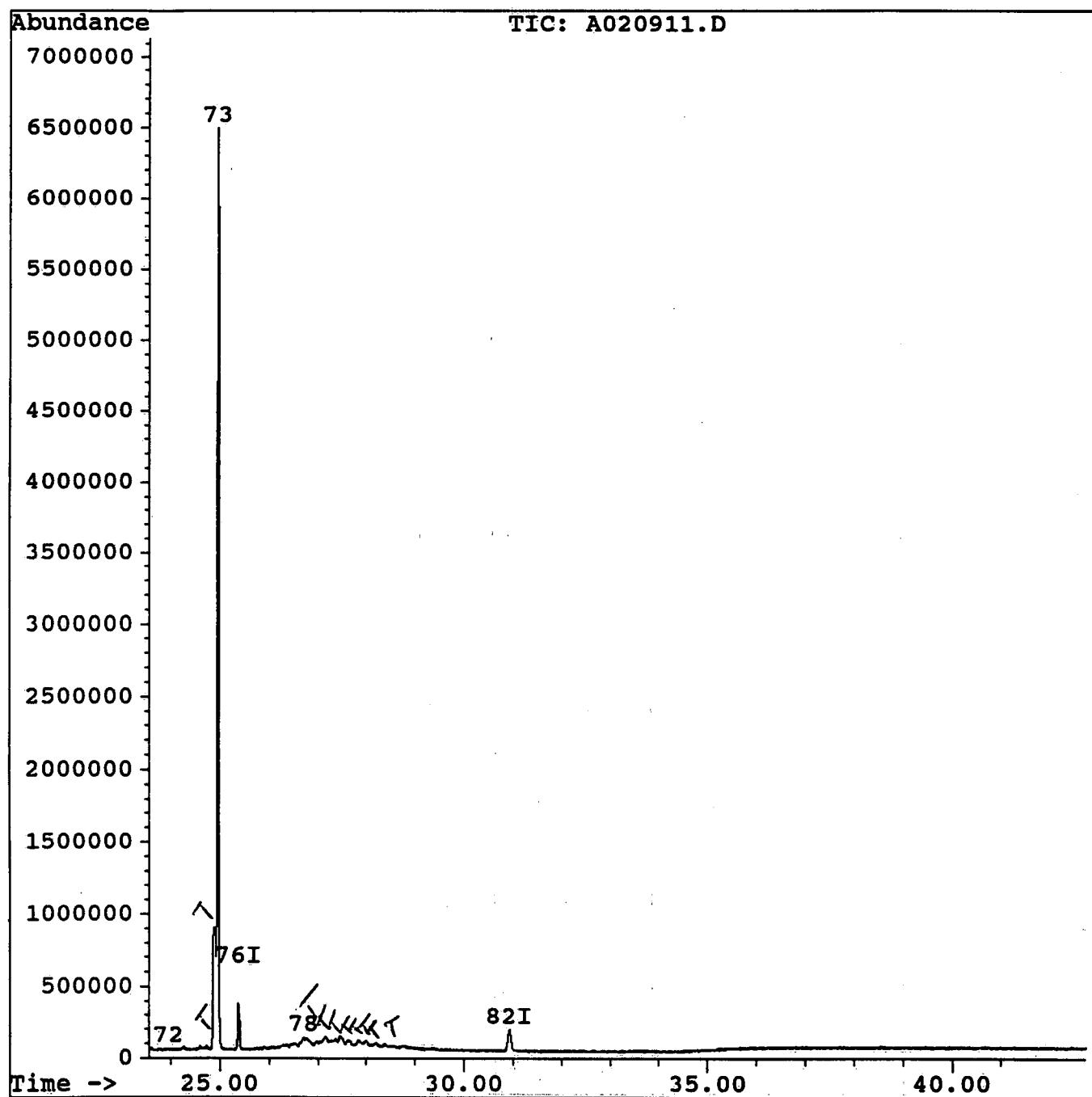
Name: 9301L306-007 LE CARPENTER

Misc: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CCL

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration



000003A  
QUANT REPORT

Operator ID: TAS Date Acquired: 9 Feb 93 5:01 pm

Data File: C:\CHEMPC\DATA\A020911.D

Name: 9301L306-007 LE CARPENTER

Misc: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CCL

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration

## Internal Standards

	Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
11)	1,4-Dichlorobenzene-d4	9.79	152	106088✓	40.00	ul/l	-0.01
30)	Naphthalene-d8	12.86	136	324906✓	40.00	ul/l	-0.01
46)	Acenaphthene-d10	17.26	164	136583✓	40.00	ul/l	-0.02
63)	Phenanthrene-d10	20.48	188	240450✓	40.00	ul/l	-0.01
76)	Chrysene-d12	25.38	240	251131✓	40.00	ul/l	-0.01
82)	Perylene-d12	30.92	264	226986✓	40.00	ul/l	-0.02

## Surrogate Compounds

					%Recovery
3)	2-Fluorophenol	6.94	112	3473	0.92 ul/l
4)	Phenol-d5	8.90	99	31493	8.01 ul/l
8)	2-Chlorophenol-d4	9.32	132	444	0.13 ul/l
14)	1,2-Dichlorobenzene-d4	9.95	152	999	0.45 ul/l
21)	Nitrobenzene-d5	11.16	82	98738	33.47 ul/l
39)	2-Fluorobiphenyl	15.49	172	132330	28.60 ul/l
59)	2,4,6-Tribromophenol	19.15	330	1264	1.44 ul/l
71)	p-Terphenyl-d14	22.99	244	86946	15.10 ul/l

## Target Compounds

					ISTD#
2)	Pyridine	3.80	79	391	0.11 ul/l
5)	Phenol	8.94	94	1129	0.31 ul/l
13)	Benzyl alcohol	10.10	108	236	0.14 ul/l
17)	bis(2-Chloroisopropyl)ethane	10.40	45	971	0.18 ul/l
19)	n-Nitroso-di-n-propylamine	10.78	70	304	0.27 ul/l
20)	Hexachloroethane	10.99	117	446	0.27 ul/l
22)	Nitrobenzene	11.21	77	287	0.11 ul/l
23)	Isophorone	11.42	82	654	0.13 ul/l
24)	2,4-Dimethylphenol	11.93	107	386	0.16 ul/l
26)	Benzoic Acid	12.04	122	138	0.13 ul/l
35)	2-Methylnaphthalene	14.48	142	448	0.11 ul/l
36)	Hexachlorocyclopentadiene	15.06	237	244	0.16 ul/l
37)	2,4,6-Trichlorophenol	15.25	196	150	0.12 ul/l
38)	2,4,5-Trichlorophenol	15.40	196	157	0.10 ul/l
41)	2-Nitroaniline	16.14	65	713	0.62 ul/l
43)	2,6-Dinitrotoluene	16.83	165	125	0.15 ul/l
45)	3-Nitroaniline	17.21	138	120	0.11 ul/l
48)	2,4-Dinitrophenol	17.43	184	113	0.34 ul/l
49)	4-Nitrophenol	17.74	109	160	0.32 ul/l
51)	2,4-Dinitrotoluene	17.73	165	146	0.14 ul/l
52)	Diethylphthalate	18.27	149	3662	0.89 ul/l
56)	4,6-Dinitro-2-methylphenol	18.76	198	241	0.41 ul/l
57)	n-Nitrosodiphenylamine	18.76	169	356	0.14 ul/l
58)	1,2-Diphenylhydrazine	19.20	77	586	0.11 ul/l
62)	Pentachlorophenol	20.19	266	128	0.13 ul/l
67)	Di-n-butylphthalate	21.34	149	5430	0.73 ul/l

(#) = qualifier out of range RR DIL 1:10 For BEHP.

KD 0a110193

0000039

## QUANT REPORT

Operator ID: TAS Date Acquired: 9 Feb 93 5:01 pm

Data File: C:\CHEMPC\DATA\A020911.D

Name: 9301L306-007 LE CARPENTER

Misc: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CCL

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration

Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
69) Benzidine	22.37	184	123	0.16	ul/l	004#
72) Butylbenzylphthalate	23.97	149	628	0.19	ul/l	005
73) bis(2-Ethylhexyl)phthalate	24.96	149	3749654	861.15	ul/l✓	005m
78) Di-n-octylphthalate	26.72	149	30526	4.09	ul/l✗	006

(#) = qualifier out of range

## Tentatively Identified Compound (LSC) summary

Operator ID: TAS Date Acquired: 9 Feb 93 5:01 pm

Data File: C:\CHEMPC\DATA\A020911.D

Name: 9301L306-007 LE CARPENTER

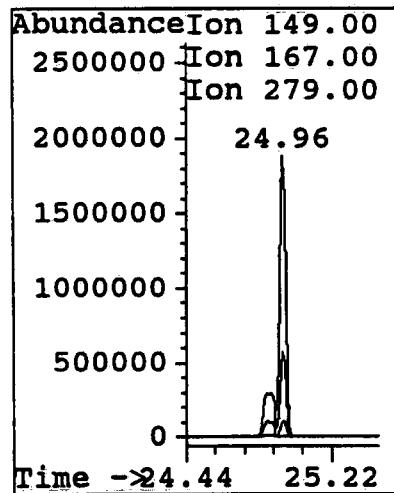
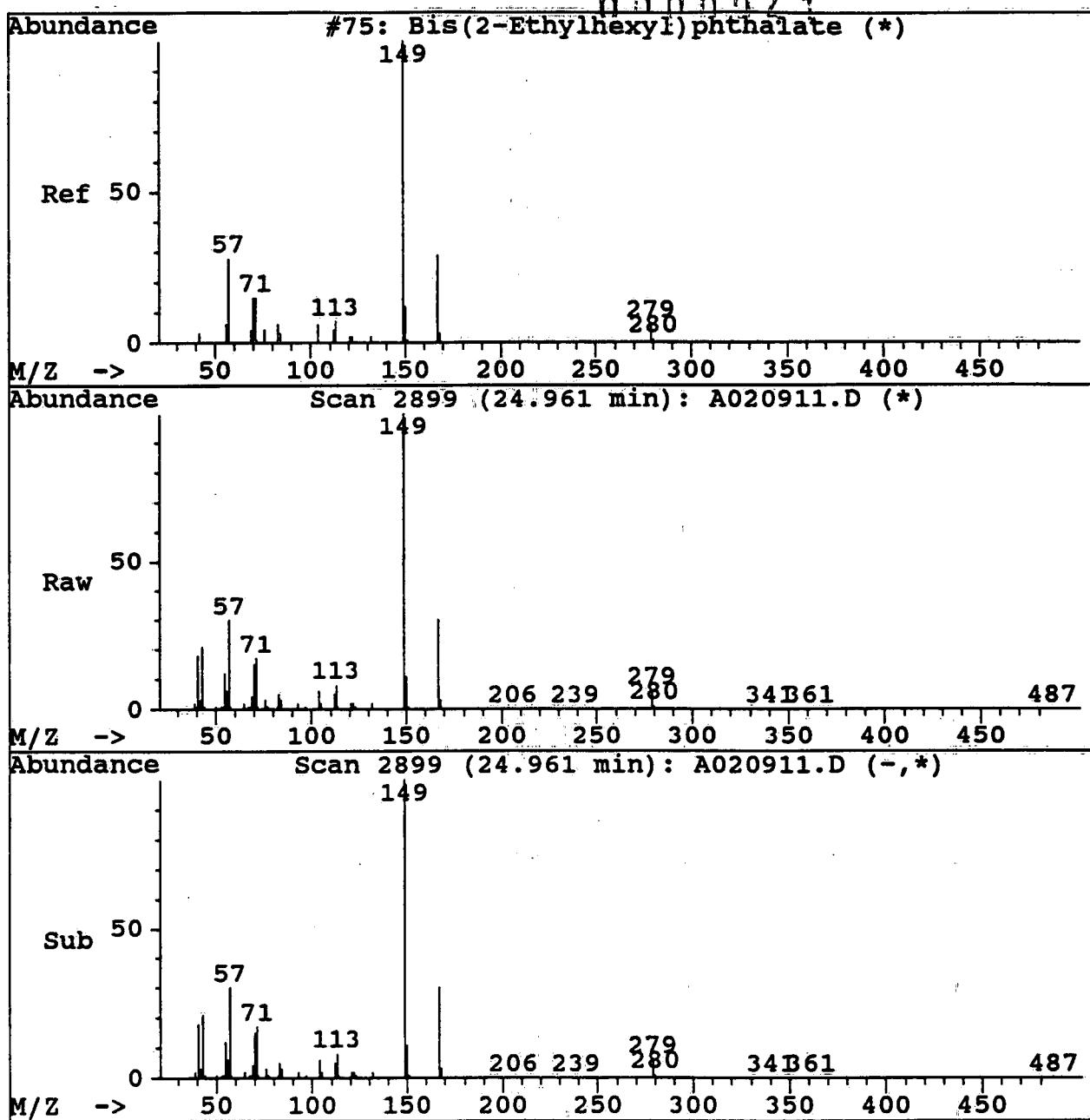
Misc: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CCL

Method: 625RTE.M

Title: 625 RTE Integrated Report

Library Searched: nbs54k.1

TIC name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
6,7-Dodecanedione	15.19	5.9	ul/l	95786	ISTD03	17.26	651506	40.0
Benzene, 1-isothiocyanate	24.60	4.1	ul/l	83616	ISTD05	25.38	824168	40.0
No Hits From nbs54k.	26.77	14.0	ul/l	287532	ISTD05	25.38	824168	40.0
1,2-Benzenedicarboxylic acid	26.98	5.2	ul/l	108093	ISTD05	25.38	824168	40.0
1,2-Benzenedicarboxylic acid	27.17	10.9	ul/l	225165	ISTD05	25.38	824168	40.0
Tricyclo[4.3.1.13,8]octane	27.45	15.7	ul/l	323385	ISTD05	25.38	824168	40.0
1,2-Benzenedicarboxylic acid	27.64	9.8	ul/l	201827	ISTD05	25.38	824168	40.0
1,2-Benzenedicarboxylic acid	27.86	8.8	ul/l	181500	ISTD05	25.38	824168	40.0
Benzothiazole, 2-methyl	28.00	9.1	ul/l	187732	ISTD05	25.38	824168	40.0
Propanoic acid, 2,2-dimethyl-	28.22	7.3	ul/l	134934	ISTD06	30.92	734879	40.0
1H-S-Triazolo[1,5-a]pyrimidine	28.38	5.2	ul/l	96165	ISTD06	30.92	734879	40.0



Lab File: A020911.D Acq: 9 Feb 93 5:01 pm  
 Sample: 9301L306-007 LE CARPENTER  
 Misc : 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209

#73 bis(2-Ethylhexyl)phthalate  
 Concen: 861.15 ul/l m  
 RT: 24.96 min Delta R.T. -0.00 min  
 Tgt Ion:149 Area: 3749654

Ion	Ratio	Lower	Upper
149	100		
167	29.8	22.2	33.2
279	5.6	3.3	4.9#
0	0.0	0.0	0.0

0000042

Tentatively Identified Compound (LSC)

Operator ID: TAS Date Acquired: 9 Feb 93 5:01 pm

Data File: C:\CHEMPC\DATA\A020911.D

Name: 9301L306-007 LE CARPENTER

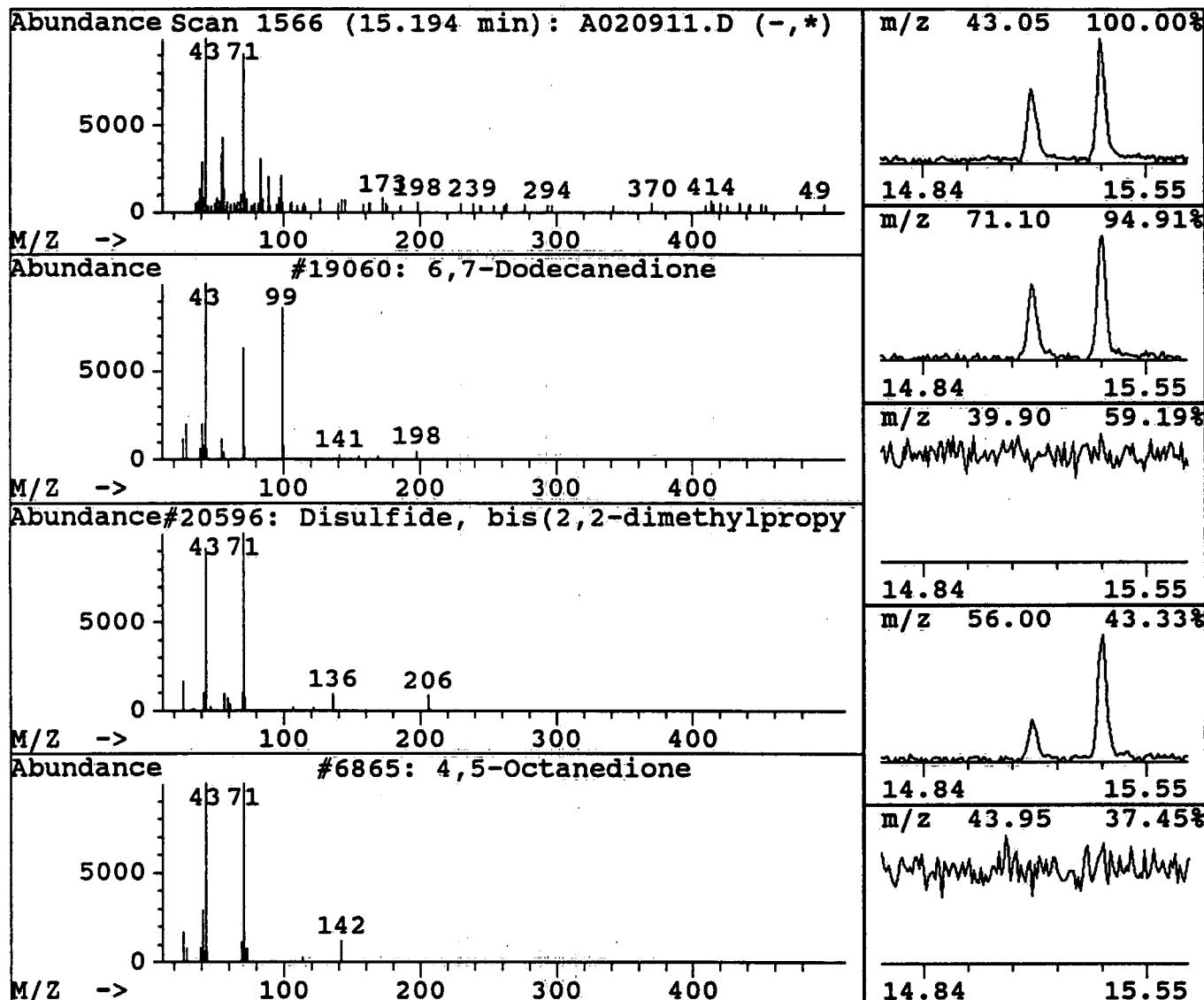
Misc: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CCL

Method: 625RTE.M

Title: 625 RTE Integrated Report

Library Searched: nbs54k.1

R.T.	Conc	Area	Relative to ISTD	R.T.	
15.19	5.88 ul/l	95786	Acenaphthene-d10	17.26	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	6,7-Dodecanedione		19060	013757-90-9	47
2	Disulfide, bis(2,2-dimethylpropyl)		20596	037552-63-9	47
3	4,5-Octanedione		6865	005455-24-3	47
4	Propanoic acid, 2-methyl-, 2,2-dime		22660	074367-33-2	47
5	Butanoic acid, cyclohexyl ester		13041	001551-44-6	38

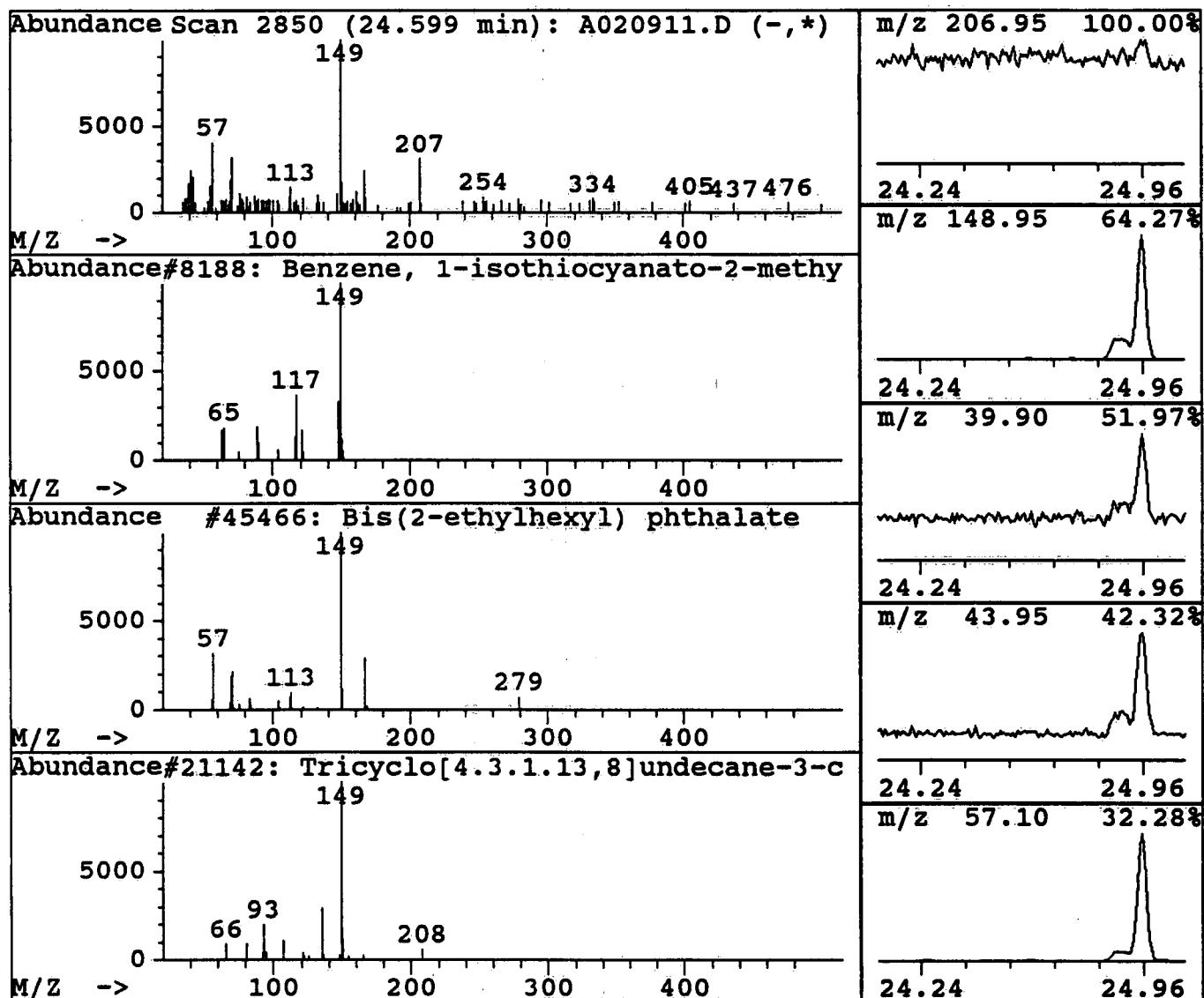


0000043

Tentatively Identified Compound (LSC)  
 Operator ID: TAS Date Acquired: 9 Feb 93 5:01 pm  
 Data File: C:\CHEMPC\DATA\A020911.D  
 Name: 9301L306-007 LE CARPENTER  
 Misc: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CCL  
 Method: 625RTE.M  
 Title: 625 RTE Integrated Report

Library Searched: nbs54k.1

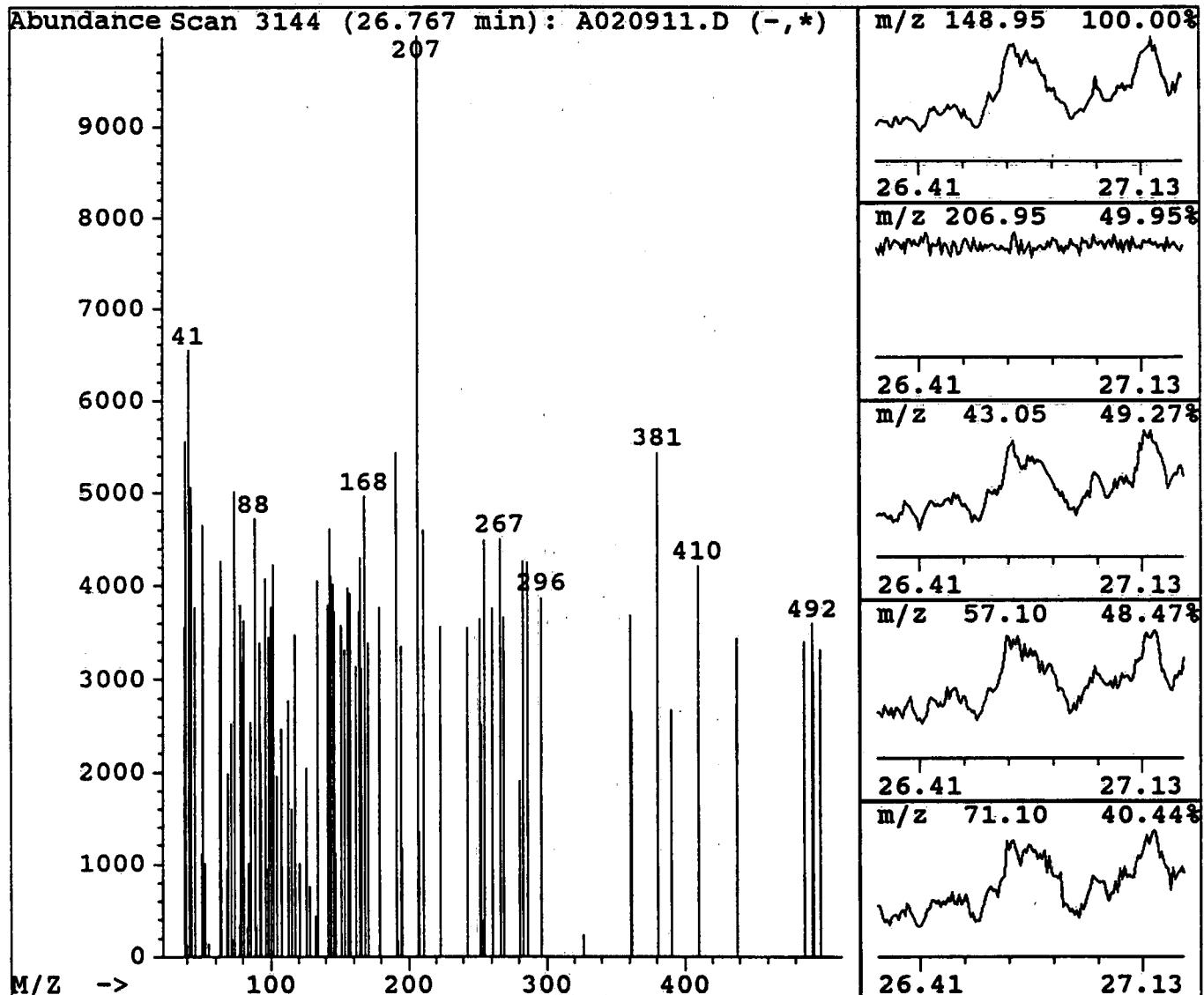
R.T.	Conc	Area	Relative to ISTD	R.T.
24.60	4.06 ul/l	83616	Chrysene-d12	25.38 UNKNOWN
Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-isothiocyanato-2-methyl-	8188	000614-69-7	49
2	Bis(2-ethylhexyl) phthalate	45466	000117-81-7	47
3	Tricyclo[4.3.1.13,8]undecane-3-carb	21142	031061-61-7	47
4	1,2-Benzisothiazole, 3-methyl-	8189	006187-89-9	47
5	1,2-Benzisothiazole-3-acetamide	17558	029273-65-2	38



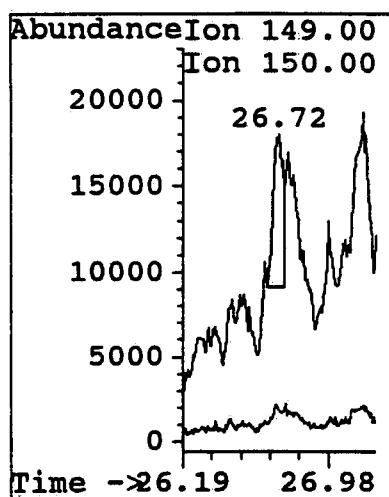
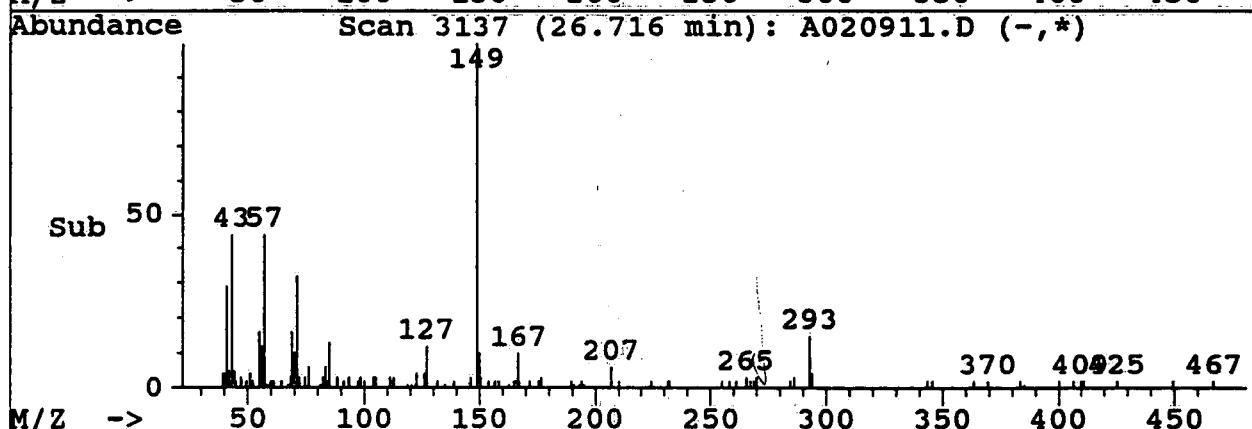
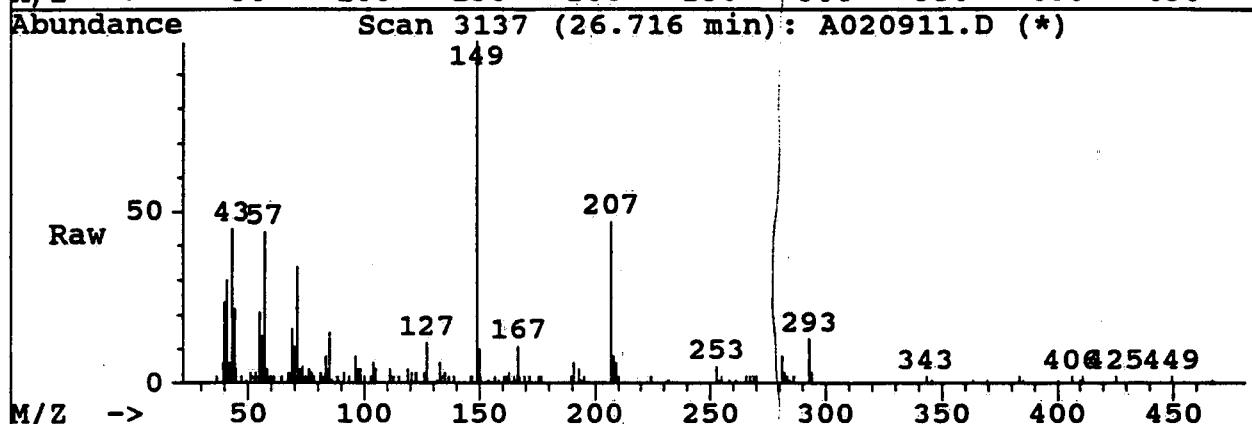
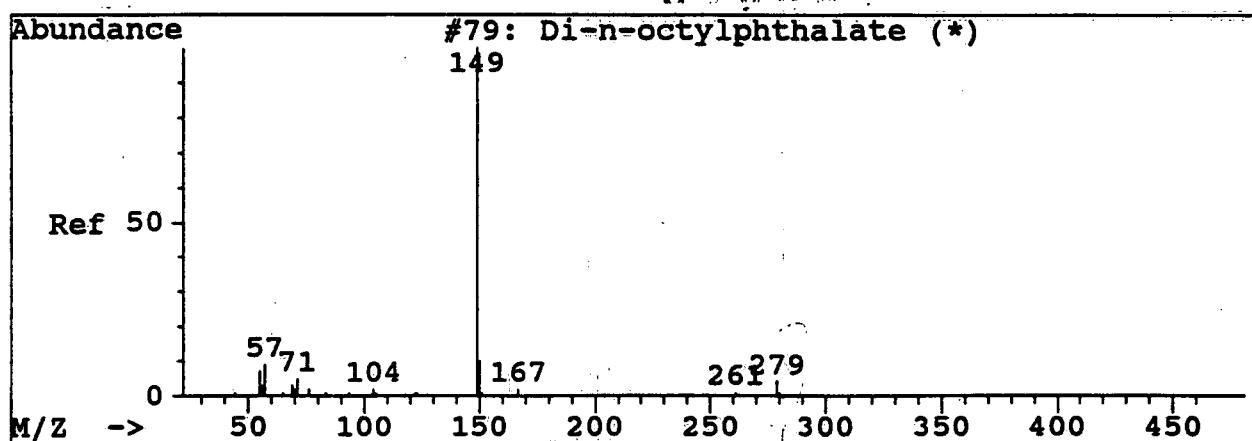
0000044  
Tentatively Identified Compound (LSC)  
Operator ID: TAS Date Acquired: 9 Feb 93 5:01 pm  
Data File: C:\CHEMPC\DATA\A020911.D  
Name: 9301L306-007 LE CARPENTER  
Misc: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CCL  
Method: 625RTE.M  
Title: 625 RTE Integrated Report

Library Searched: nbs54k.1

R.T.	Conc	Area	Relative to ISTD	R.T.	
26.77	13.96 ul/l	287532	Chrysene-d12	Unknown	25.38
Hit# of	0	Tentative ID	Ref#	CAS#	Qual
1	No Hits From nbs54k.1		0	000000-00-0	0



0000045



Lab File: A020911.D Acq: 9 Feb 93 5:01 pm  
 Sample: 9301L306-007 LE CARPENTER  
 Misc : 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209

#78 Di-n-octylphthalate  
 Concen: 4.09 ul/l  
 RT: 26.72 min Delta R.T. -0.03 min  
 Tgt Ion:149 Area: 30526

Ion	Ratio	Lower	Upper
149	100		
150	9.2	7.7	11.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

File: C:\CHEMPC\DATA\A020911.D

Operator: TAS

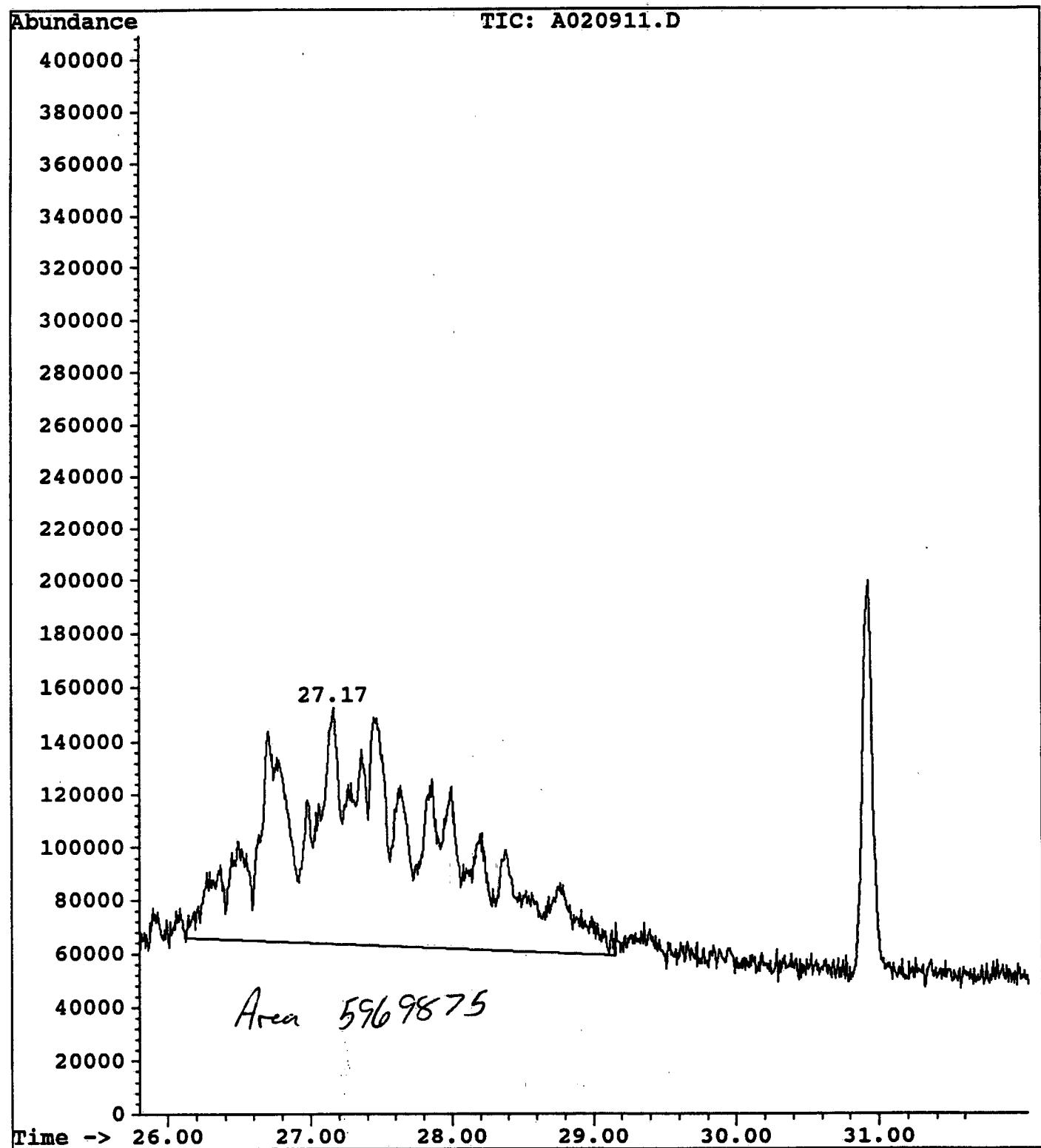
Date Acquired: 9 Feb 93 5:01 pm

Method File: 625RTE.M

Sample Name: 9301L306-007 LE CARPENTER

Misc Info: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CC

ALS vial: 9



0000047

Tentatively Identified Compound (LSC)

Operator ID: TAS Date Acquired: 9 Feb 93 5:01 pm

Data File: C:\CHEMPC\DATA\A020911.D

Name: 9301L306-007 LE CARPENTER

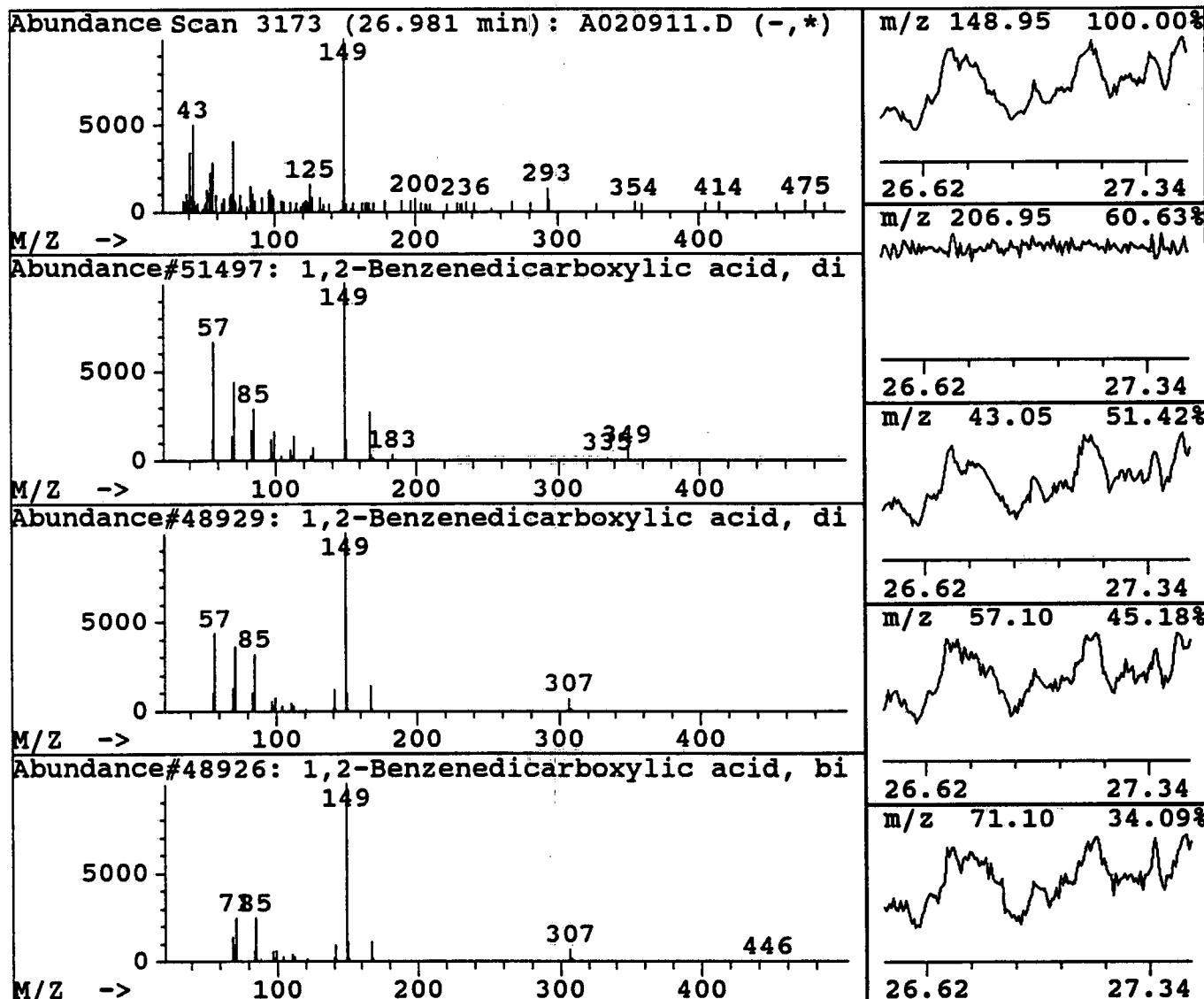
Misc: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CCL

Method: 625RTE.M

Title: 625 RTE Integrated Report

Library Searched: nbs54k.l

R.T.	Conc	Area	Relative to ISTD	R.T.			
26.98	5.25 ul/l	108093	Chrysene-d12	UNKNOWN ACID			
Hit# of 19				Tentative ID	Ref#	CAS#	Qual
1	1,2-Benzenedicarboxylic acid, ditri	51497	000119-06-2	42			
2	1,2-Benzenedicarboxylic acid, diiso	48929	026761-40-0	36			
3	1,2-Benzenedicarboxylic acid, bis(8	48926	000089-16-7	25			
4	1,2-Benzenedicarboxylic acid, bis(1	28780	000605-45-8	25			
5	Nitrofurantoin	26594	000067-20-9	25			

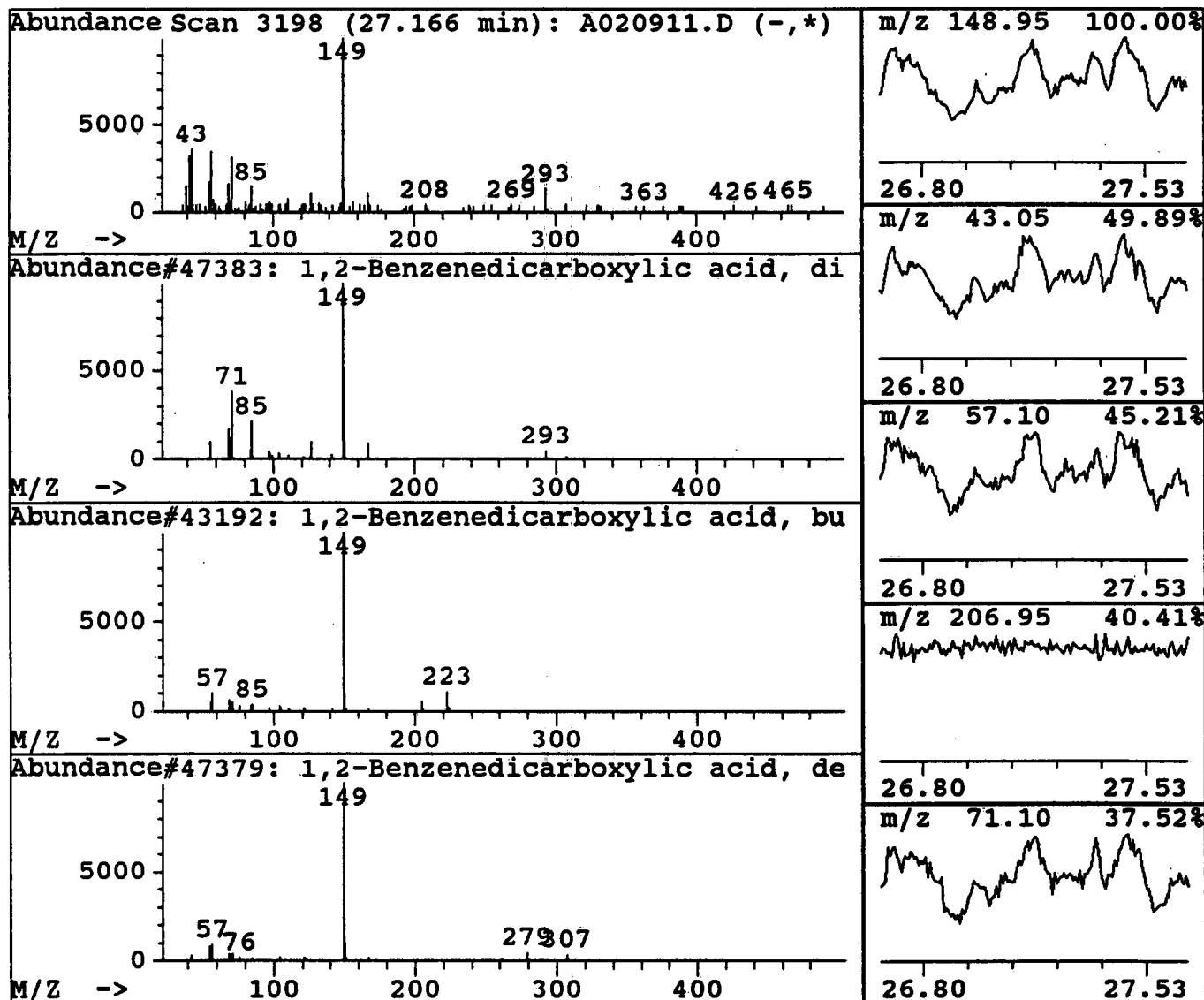


0000048

Tentatively Identified Compound (LSC)  
 Operator ID: TAS Date Acquired: 9 Feb 93 5:01 pm  
 Data File: C:\CHEMPC\DATA\A020911.D  
 Name: 9301L306-007 LE CARPENTER  
 Misc: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CCL  
 Method: 625RTE.M  
 Title: 625 RTE Integrated Report

Library Searched: nbs54k.l

R.T.	Conc	Area	Relative to ISTD	R.T.
27.17	10.93 ul/l	225165	Chrysene-d12	25.38
Hit# of 20	Tentative ID	Ref#	UNKNOWN ACID	
1	1,2-Benzenedicarboxylic acid, diiso	47383	028553-12-0	53
2	1,2-Benzenedicarboxylic acid, butyl	43192	000089-18-9	50
3	1,2-Benzenedicarboxylic acid, decyl	47379	000119-07-3	40
4	1,2-Benzenedicarboxylic acid, isode	47377	001330-96-7	40
5	1,2-Benzenedicarboxylic acid, butyl	43193	000089-19-0	40

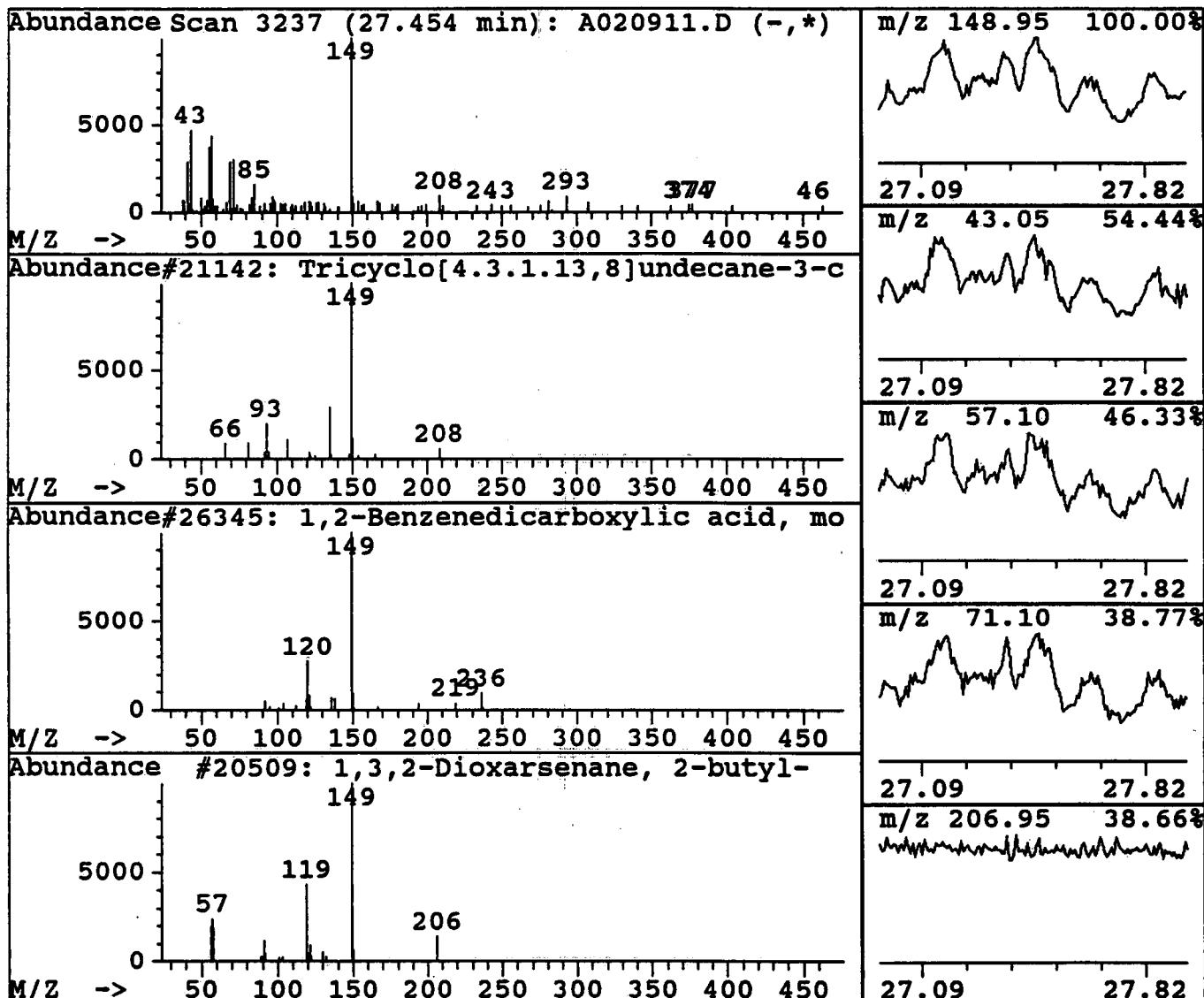


0000049

Tentatively Identified Compound (LSC)  
 Operator ID: TAS Date Acquired: 9 Feb 93 5:01 pm  
 Data File: C:\CHEMPC\DATA\A020911.D  
 Name: 9301L306-007 LE CARPENTER  
 Misc: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CCL  
 Method: 625RTE.M  
 Title: 625 RTE Integrated Report

Library Searched: nbs54k.1

R.T.	Conc	Area	Relative to ISTD	R.T.
27.45	15.70 ul/l	323385	Chrysene-d12	25.38
Hit# of 17	Tentative ID	Ref#	CAS#	Qual
1	Tricyclo[4.3.1.13,8]undecane-3-carb	21142	031061-61-7	50
2	1,2-Benzenedicarboxylic acid, monop	26345	024539-56-8	47
3	1,3,2-Dioxarsenane, 2-butyl-	20509	042541-33-3	47
4	1,2-Benzenedicarboxylic acid, decyl	47379	000119-07-3	38
5	1,2-Benzenedicarboxylic acid, bis(4	40425	000146-50-9	38

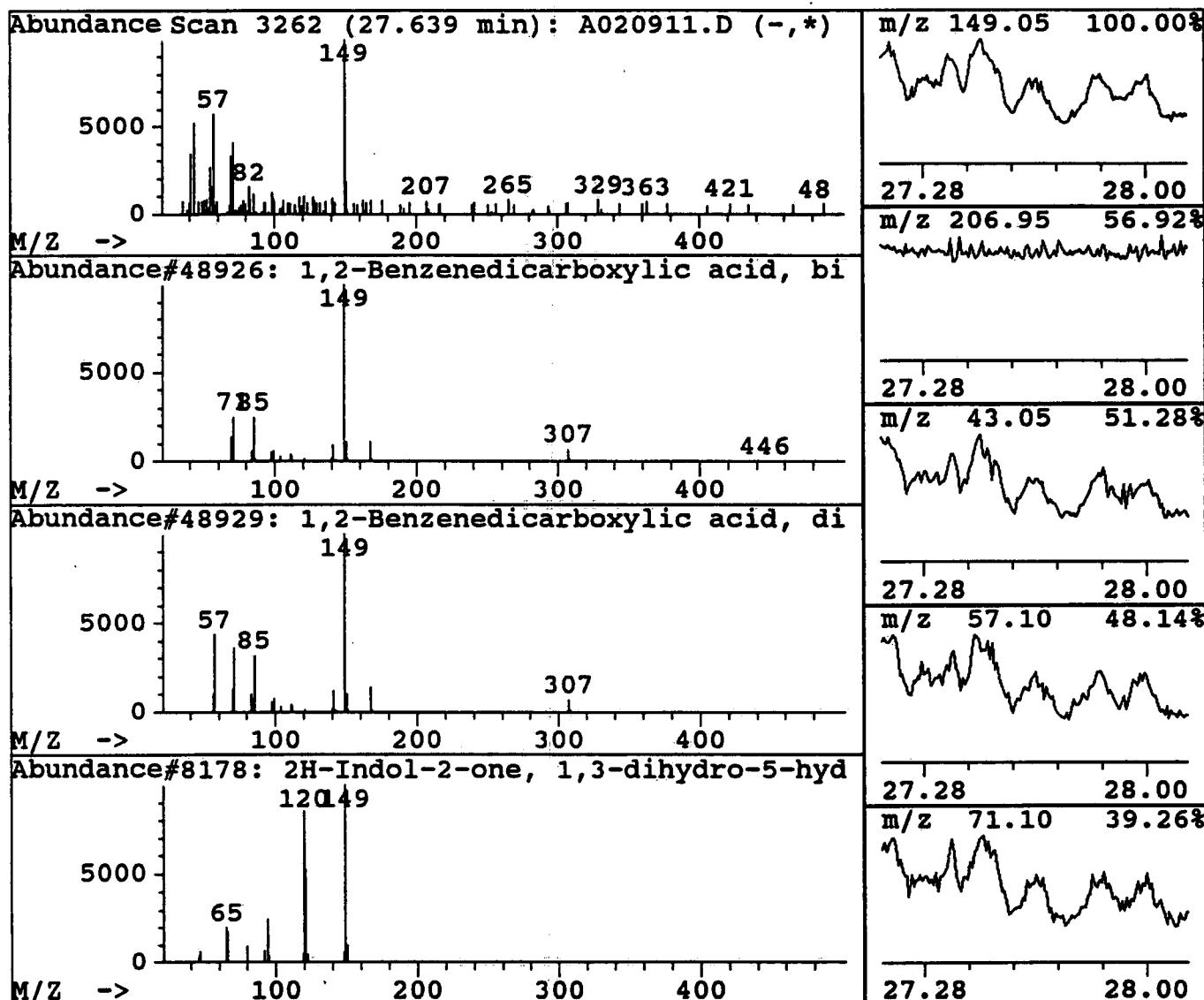


0000050

Tentatively Identified Compound (LSC)  
 Operator ID: TAS Date Acquired: 9 Feb 93 5:01 pm  
 Data File: C:\CHEMPC\DATA\A020911.D  
 Name: 9301L306-007 LE CARPENTER  
 Misc: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CCL  
 Method: 625RTE.M  
 Title: 625 RTE Integrated Report

Library Searched: nbs54k.1

R.T.	Conc	Area	Relative to ISTD	R.T.
27.64	9.80 ul/l	201827	Chrysene-d12	25.38
Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1,2-Benzenedicarboxylic acid, bis(8	48926	000089-16-7	59
2	1,2-Benzenedicarboxylic acid, diiso	48929	026761-40-0	47
3	2H-Indol-2-one, 1,3-dihydro-5-hydro	8178	003416-18-0	38
4	Carbamodithioic acid, acetyl-, meth	8149	016696-88-1	38
5	Phenol, 2-methyl-4-(1,1,3,3-tetrame	23477	002219-84-3	32

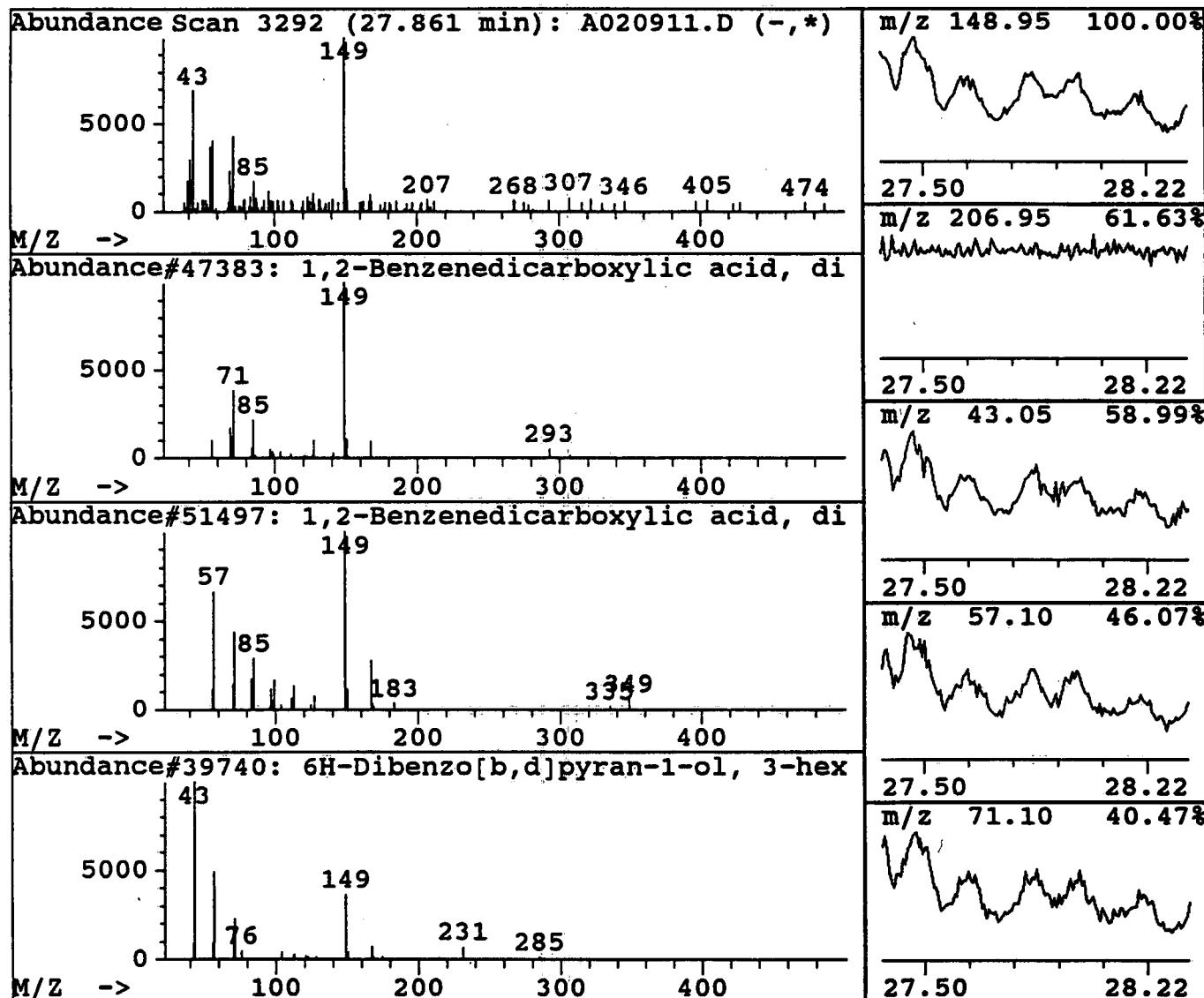


0000051

Tentatively Identified Compound (LSC)  
 Operator ID: TAS Date Acquired: 9 Feb 93 5:01 pm  
 Data File: C:\CHEMPC\DATA\A020911.D  
 Name: 9301L306-007 LE CARPENTER  
 Misc: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CCL  
 Method: 625RTE.M  
 Title: 625 RTE Integrated Report

Library Searched: nbs54k.1

R.T.	Conc	Area	Relative to ISTD	R.T.
27.86	8.81 ul/l	181500	Chrysene-d12	UNKNOWN ALD 25.38
Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1,2-Benzenedicarboxylic acid, diiso	47383	028553-12-0	59
2	1,2-Benzenedicarboxylic acid, ditri	51497	000119-06-2	45
3	6H-Dibenzo[b,d]pyran-1-ol, 3-hexyl-	39740	036482-24-3	45
4	Dibutyl phthalate	33213	000084-74-2	43
5	Di-n-octyl phthalate	45467	000117-84-0	38

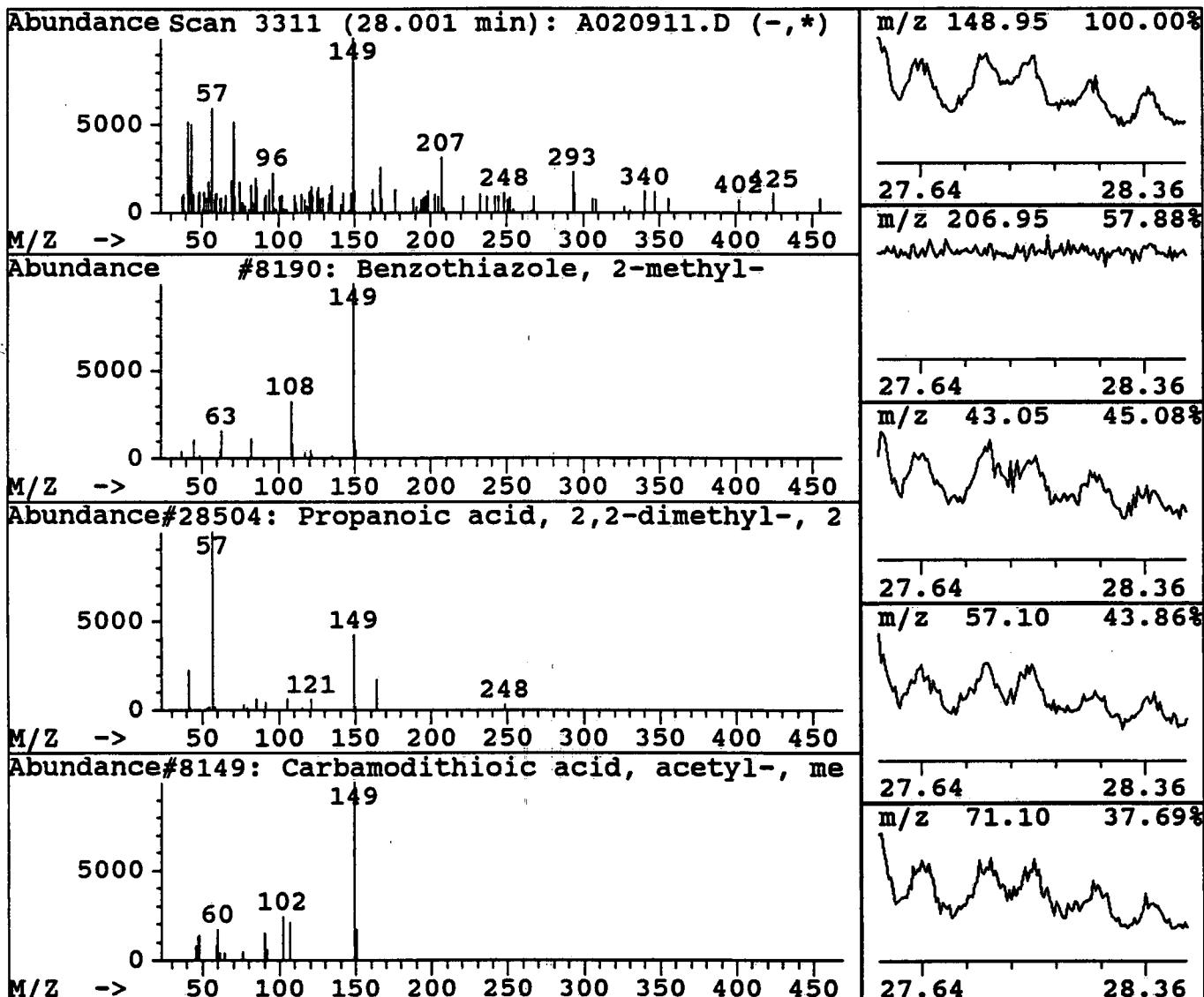


0000052

Tentatively Identified Compound (LSC)  
 Operator ID: TAS Date Acquired: 9 Feb 93 5:01 pm  
 Data File: C:\CHEMPC\DATA\A020911.D  
 Name: 9301L306-007 LE CARPENTER  
 Misc: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CCL  
 Method: 625RTE.M  
 Title: 625 RTE Integrated Report

Library Searched: nbs54k.1

R.T.	Conc	Area	Relative to ISTD	R.T.	
28.00	9.11 ul/l	187732	Chrysene-d12	25.38	
				UNKNOWN	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Benzothiazole, 2-methyl-		8190	000120-75-2	49
2	Propanoic acid, 2,2-dimethyl-, 2-(1		28504	054644-42-7	43
3	Carbamodithioic acid, acetyl-, meth		8149	016696-88-1	43
4	1,2-Benzisothiazole, 3-methyl-		8189	006187-89-9	43
5	Formamide, n-ethyl-N-phenyl-		8232	005461-49-4	43

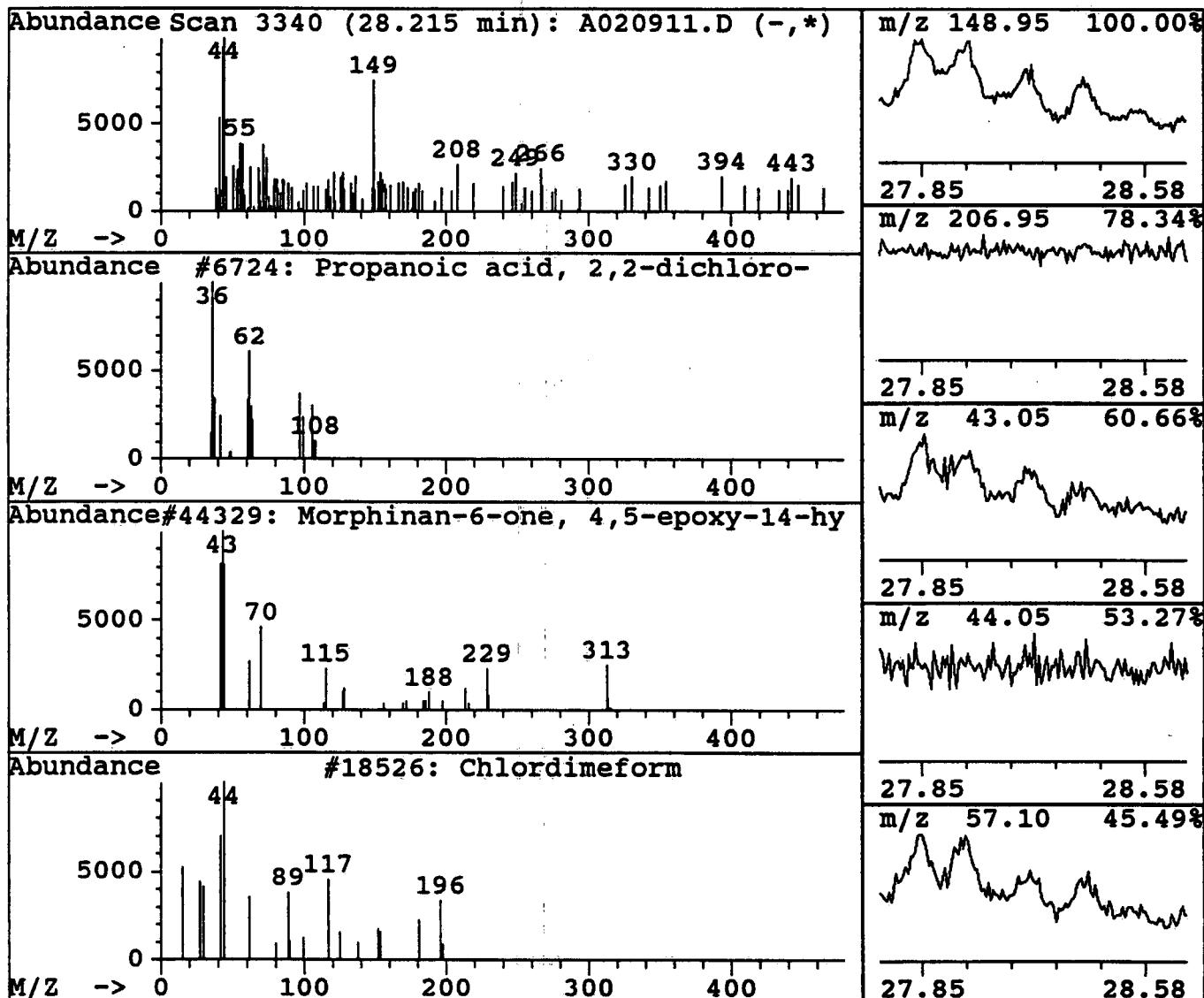


0000052

Tentatively Identified Compound (LSC)  
 Operator ID: TAS Date Acquired: 9 Feb 93 5:01 pm  
 Data File: C:\CHEMPC\DATA\A020911.D  
 Name: 9301L306-007 LE CARPENTER  
 Misc: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CCL  
 Method: 625RTE.M  
 Title: 625 RTE Integrated Report

Library Searched: nbs54k.l

R.T.	Conc	Area	Relative to ISTD	R.T.	
28.22	7.34 ul/l	134934	Perylene-d12	UNKNOWN	
Hit# of	3	Tentative ID	Ref#	CAS#	Qual
1	Propanoic acid, 2,2-dichloro-		6724	000075-99-0	10
2	Morphinan-6-one, 4,5-epoxy-14-hydro		44329	055400-10-7	8
3	Chlordimeform		18526	006164-98-3	6



0000052

Tentatively Identified Compound (LSC)

Operator ID: TAS Date Acquired: 9 Feb 93 5:01 pm

Data File: C:\CHEMPC\DATA\A020911.D

Name: 9301L306-007 LE CARPENTER

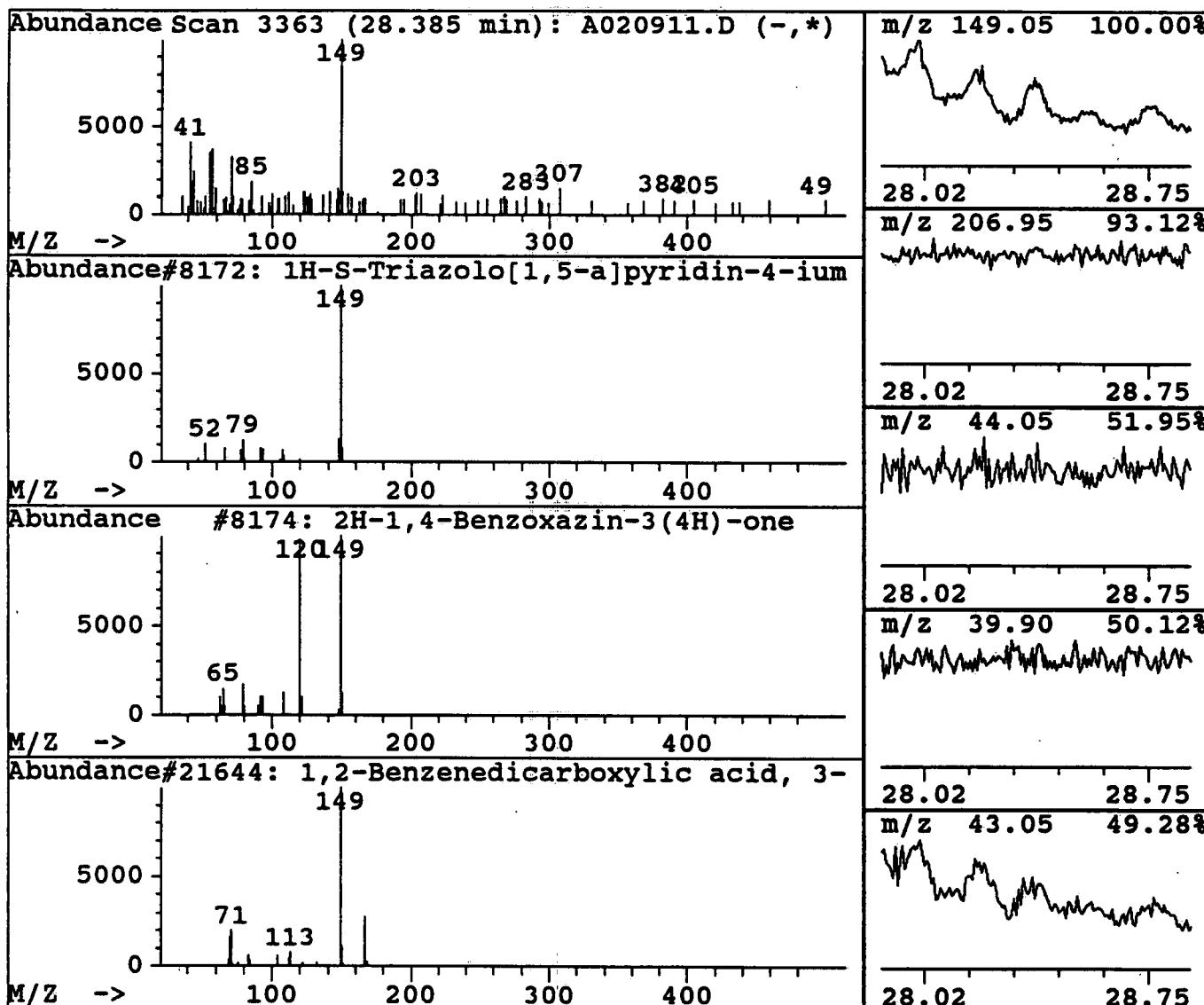
Misc: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CCL

Method: 625RTE.M

Title: 625 RTE Integrated Report

Library Searched: nbs54k.1

R.T.	Conc	Area	Relative to ISTD	R.T.	
28.38	5.23 ul/l	96165	Perylene-d12	30.92	
Hit# of 20		Tentative ID	Ref#	CAS#	Qual
1	1H-S-Triazolo[1,5-a]pyridin-4-ium,		8172	013980-64-8	49
2	2H-1,4-Benzoxazin-3(4H)-one		8174	005466-88-6	49
3	1,2-Benzenedicarboxylic acid, 3-nit		21644	000603-11-2	47
4	Benzene, 1-isothiocyanato-4-methyl-		8186	000622-59-3	47
5	1,2-Benzenedicarboxylic acid, bis(1		45468	000131-15-7	40



1B  
SEMICVOLATILE ORGANICS ANALYSIS SHEET

0000055

CLIENT SAMPLE NO.

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0300

MW-110DL

Client: LE CARPENTERMatrix: WATERLab Sample ID: 9301L306-007 DLSample wt/vol: 890 (g/mL) MLLab File ID: A021203Level: (low/med) LOWDate Received: 01/15/93

% Moisture: not dec. \_\_\_\_\_ dec.

Date Extracted: 01/20/93Extraction: (SepF/Cont/Sonc) CONTDate Analyzed: 02/12/93GPC Cleanup: (Y/N) N pH: 7.0Dilution Factor: 5.00

## CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/L

111-44-4-----bis(2-Chloroethyl)ether	NA
541-73-1-----1,3-Dichlorobenzene	NA
106-46-7-----1,4-Dichlorobenzene	NA
95-50-1-----1,2-Dichlorobenzene	NA
108-60-1-----bis(2-Chloroisopropyl)ether	NA
621-64-7-----N-Nitroso-Di-n-propylamine	NA
67-72-1-----Hexachloroethane	NA
98-95-3-----Nitrobenzene	NA
78-59-1-----Isophorone	NA
111-91-1-----bis(2-Chloroethoxy)methane	NA
120-82-1-----1,2,4-Trichlorobenzene	NA
91-20-3-----Naphthalene	NA
87-68-3-----Hexachlorobutadiene	NA
77-47-4-----Hexachlorocyclopentadiene	NA
91-58-7-----2-Chloronaphthalene	NA
131-11-3-----Dimethylphthalate	NA
208-96-8-----Acenaphthylene	NA
606-20-2-----2,6-Dinitrotoluene	NA
83-32-9-----Acenaphthene	NA
121-14-2-----2,4-Dinitrotoluene	NA
84-66-2-----Diethylphthalate	NA
7005-72-3-----4-Chlorophenyl-phenylether	NA
86-73-7-----Fluorene	NA
86-30-6-----N-Nitrosodiphenylamine (1)	NA
101-55-3-----4-Bromophenyl-phenylether	NA
118-74-1-----Hexachlorobenzene	NA
85-01-8-----Phenanthrene	NA
120-12-7-----Anthracene	NA
84-74-2-----Di-n-Butylphthalate	NA
206-44-0-----Fluoranthene	NA
129-00-0-----Pyrene	NA
85-68-7-----Butylbenzylphthalate	NA
91-94-1-----3,3'-Dichlorobenzidine	NA

## SEMOVOLATILE ORGANICS ANALYSIS SHEET

MW-110DL

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0300Client: LE CARPENTERMatrix: WATER Lab Sample ID: 9301L306-007 DLSample wt/vol: 890 (g/mL) ML Lab File ID: A021203Level: (low/med) LOW Date Received: 01/15/93% Moisture: not dec.        dec. Date Extracted: 01/20/93Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 02/12/93GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 5.00

## CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L

56-55-3-----	Benzo(a)anthracene	NA	
218-01-9-----	Chrysene	NA	
117-81-7-----	bis(2-Ethylhexyl)phthalate	820	B
117-84-0-----	Di-n-Octyl phthalate	NA	
205-99-2-----	Benzo(b)fluoranthene	NA	
207-08-9-----	Benzo(k)fluoranthene	NA	
50-32-8-----	Benzo(a)pyrene	NA	
193-39-5-----	Indeno(1,2,3-cd)pyrene	NA	
53-70-3-----	Dibenzo(a,h)anthracene	NA	
191-24-2-----	Benzo(g,h,i)perylene	NA	
62-75-9-----	N-Nitrosodimethylamine	NA	
92-87-5-----	Benzidine	NA	

(1) - Cannot be separated from Diphenylamine

FORM 1 SV-2

12/88 Rev.

0000057

## QUANT REPORT

Operator ID: KAD Date Acquired: 12 Feb 93 9:57 am

Data File: C:\CHEMPC\DATA\A021203.D

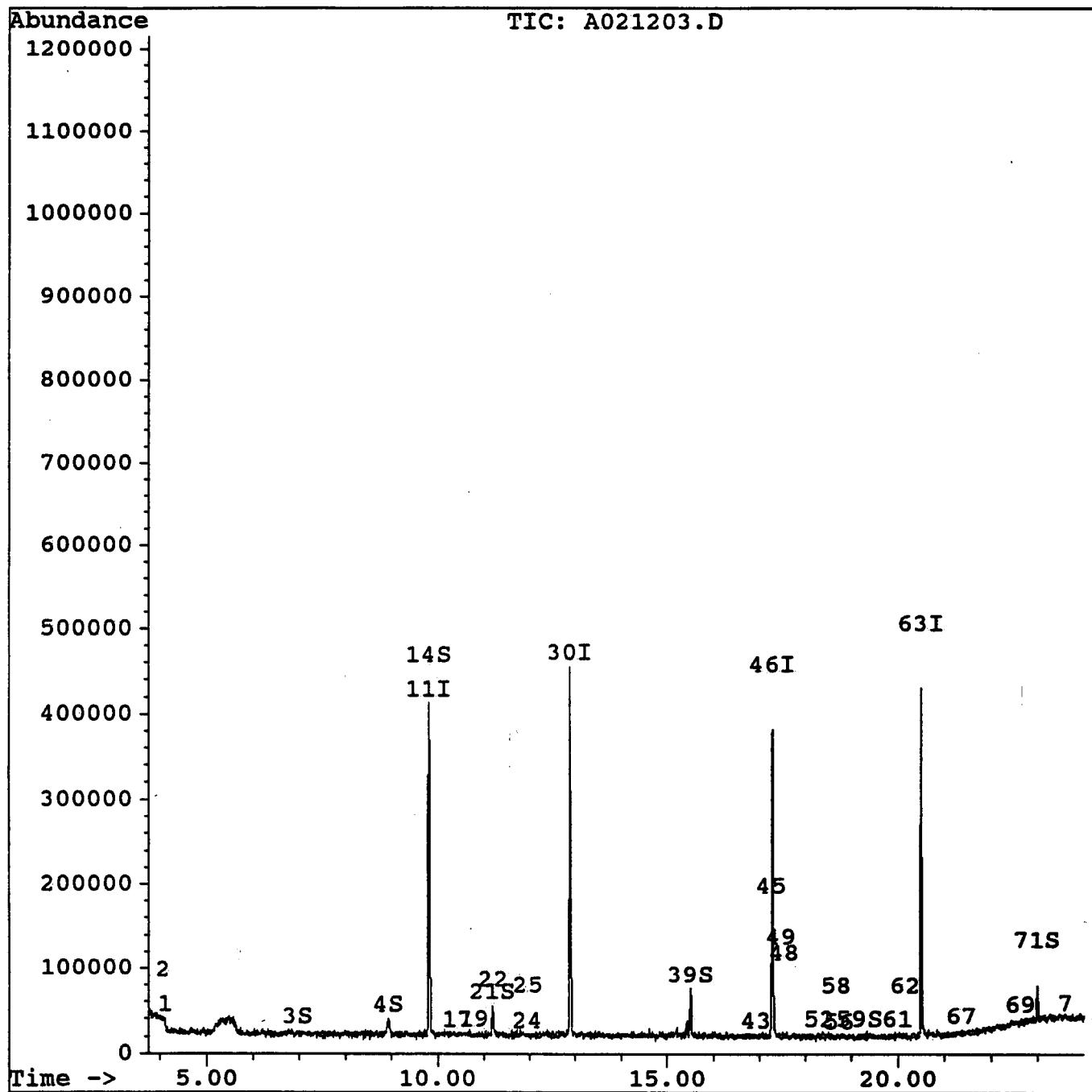
Name: 9301L306-007 LE CARPENTER

Misc: 30M RTX5,A021201,DIL5.0,5971A,2ULINJ,A0212CCL

Method: 625RTE.M

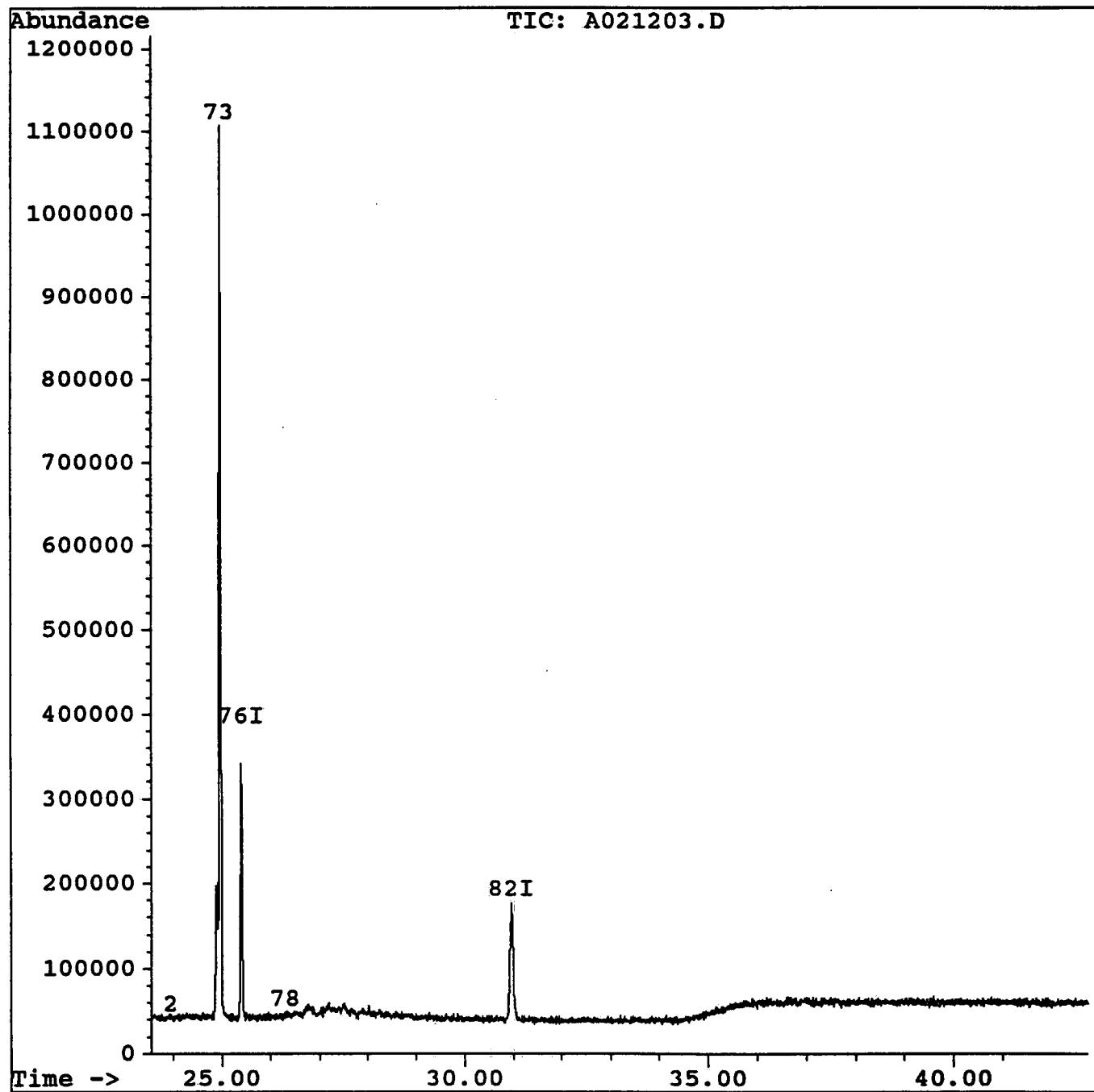
Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration



0000058  
QUANT REPORT  
Operator ID: KAD Date Acquired: 12 Feb 93 9:57 am  
Data File: C:\CHEMPC\DATA\A021203.D  
Name: 9301L306-007 LE CARPENTER  
Misc: 30M RTX5,A021201,DIL5.0,5971A,2ULINJ,A0212CCL  
Method: 625RTE.M  
Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration



## QUANT REPORT

Operator ID: KAD Date Acquired: 12 Feb 93 9:57 am

Data File: C:\CHEMPC\DATA\A021203.D

Name: 9301L306-007 LE CARPENTER

Misc: 30M RTX5,A021201,DIL5.0,5971A,2ULINJ,A0212CCL

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration

## Internal Standards

Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
11) 1,4-Dichlorobenzene-d4	9.82	152	122644✓	40.00	ul/l	-0.01
30) Naphthalene-d8	12.88	136	388898✓	40.00	ul/l	-0.01
46) Acenaphthene-d10	17.29	164	159908✓	40.00	ul/l	-0.00
63) Phenanthrene-d10	20.50	188	237751✓	40.00	ul/l	-0.00
76) Chrysene-d12	25.40	240	234410✓	40.00	ul/l	-0.01
82) Perylene-d12	30.97	264	205856✓	40.00	ul/l	-0.01

## Surrogate Compounds

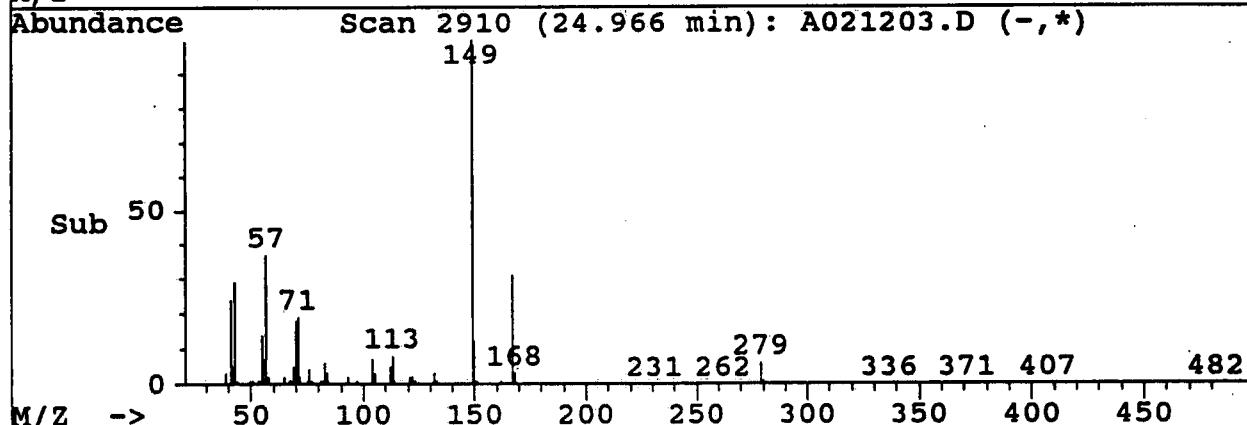
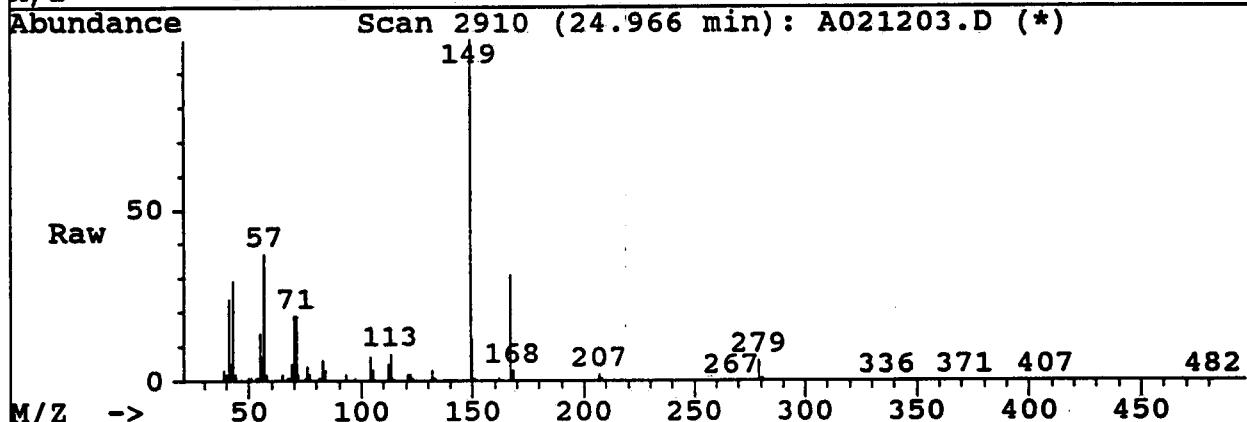
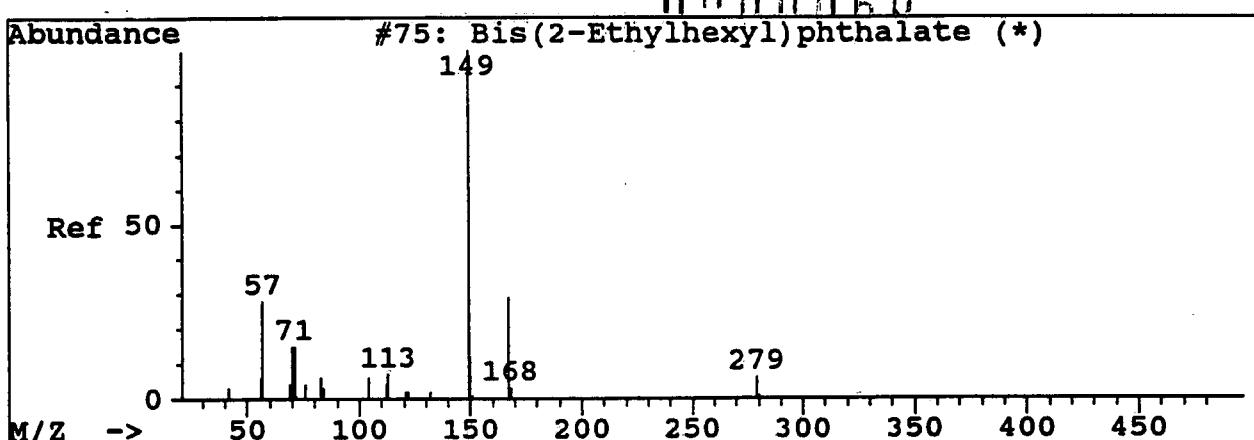
				%Recovery
3) 2-Fluorophenol	6.96	112	1151	0.27 ul/l 0.27%
4) Phenol-d5	8.93	99	7808	1.77 ul/l 1.77%
8) 2-Chlorophenol-d4	9.31	132	113	0.03 ul/l 0.03%
14) 1,2-Dichlorobenzene-d4	9.82	152	122742	48.73 ul/l 97.46%
21) Nitrobenzene-d5	11.19	82	20547	5.57 ul/l 11.14%
39) 2-Fluorobiphenyl	15.51	172	30802	5.89 ul/l 11.78%
59) 2,4,6-Tribromophenol	19.16	330	208	0.25 ul/l 0.25%
71) p-Terphenyl-d14	23.00	244	17516	3.29 ul/l 6.58%

## Target Compounds

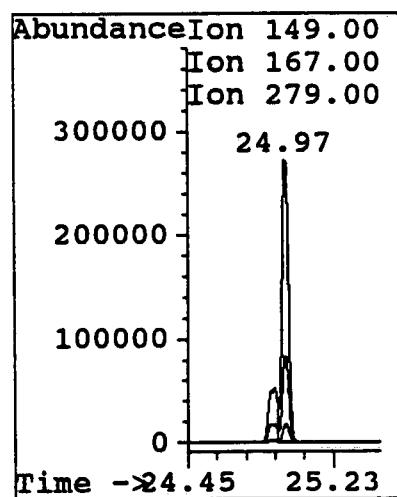
					ISTD#
1) N-nitrosodimethylamine	4.11	74	223	0.11 ul/l	001#
2) Pyridine	4.05	79	659	0.16 ul/l	001
17) bis(2-Chloroisopropyl)ethane	10.42	45	644	0.10 ul/l	001#
19) n-Nitroso-di-n-propylamine	10.79	70	170	0.14 ul/l	001#
22) Nitrobenzene	11.22	77	583	0.18 ul/l	002#
24) 2,4-Dimethylphenol	11.95	107	275	0.10 ul/l	002#
25) 2-Nitrophenol	11.95	139	172	0.12 ul/l	002#
43) 2,6-Dinitrotoluene	16.94	165	126	0.14 ul/l	003#
45) 3-Nitroaniline	17.26	138	135	0.11 ul/l	003#
48) 2,4-Dinitrophenol	17.56	184	164	0.51 ul/l	003#
49) 4-Nitrophenol	17.47	109	237	0.45 ul/l	003#
52) Diethylphthalate	18.30	149	991	0.22 ul/l	003#
56) 4,6-Dinitro-2-methylphenol	18.72	198	119	0.22 ul/l	004#
58) 1,2-Diphenlyhydrazine	18.67	77	709	0.14 ul/l	004
61) Hexachlorobenzene	19.99	284	229	0.14 ul/l	004#
62) Pentachlorophenol	20.16	266	150	0.16 ul/l	004#
67) Di-n-butylphthalate	21.36	149	1199	0.17 ul/l	004#
69) Benzidine	22.63	184	108	0.28 ul/l	004#
72) Butylbenzylphthalate	23.80	149	336	0.11 ul/l	005#
73) bis(2-Ethylhexyl)phthalate	24.97	149	584239	149.27 ul/l✓	005m
78) Di-n-octylphthalate	26.30	149	1083	0.16 ul/l	006

KD oalra k3

(#= qualifier out of range



OK



Lab File: A021203.D Acq: 12 Feb 93 9:57 am  
Sample: 9301L306-007 LE CARPENTER  
Misc : 30M RTX5,A021201,DIL5.0,5971A,2ULINJ,A0212

#73 bis(2-Ethylhexyl)phthalate

Concen: 149.27 ul/l m  
RT: 24.97 min Delta R.T. -0.01 min  
Tgt Ion:149 Area: 584239

	Ion	Ratio	Lower	Upper
	149	100		
	167	10.4	22.2	33.2#
	279	1.1	3.3	4.9#
	0	0.0	0.0	0.0

**IV. Standards Data Package****A. Initial Calibration Data:**

1. Form 6
2. Reconstructed Ion Chromatogram(s) and Quantitation Report(s)

**B. Continuing Calibration Data**

1. Form 7
2. Reconstructed Ion Chromatogram(s) and Quantitation Report(s)

**C. Internal Standard Summary (Form 8)  
(if applicable)**

6B  
SEMIVOLATILE ORGANICS INTITIAL CALIBRATION DATA

Lab Name: Roy F. Weston, Inc.Contract: 6720-02-15Case No.: LE CARPENTERRFW Lot: 9301L306Instrument ID: HP5971ACalibration Date(s): 02/04/93    02/04/93

Min RRF for SPCC(#) = 0.050

Max %RSD for CCC(\*) = 30.0%

LAB FILE ID:	RRF20 = A020404	RRF50 = A020403			
	RRF80 = A020405	RRF120= A020406	RRF160= A020407	RRF	% RSD
bis(2-Chloroethyl)ether	1.151	1.188	1.115	1.155	1.190
1,3-Dichlorobenzene	1.246	1.205	1.171	1.218	1.243
1,4-Dichlorobenzene	* 1.254	1.223	1.255	1.237	1.279
1,2-Dichlorobenzene	1.188	1.185	1.153	1.176	1.202
bis(2-Chloroisopropyl)ether	2.199	2.110	2.057	2.076	2.114
N-Nitroso-Di-n-propylamine	# 0.415	0.436	0.416	0.417	0.419
Hexachloroethane	0.625	0.607	0.604	0.615	0.634
Nitrobenzene	0.308	0.315	0.306	0.323	0.323
Isophorone	0.594	0.607	0.603	0.624	0.628
bis(2-Chloroethoxy)methane	0.389	0.389	0.398	0.412	0.414
1,2,4-Trichlorobenzene	0.267	0.263	0.260	0.273	0.280
Naphthalene	0.879	0.901	0.898	0.953	0.977
Hexachlorobutadiene	* 0.168	0.173	0.172	0.180	0.184
Hexachlorocyclopentadiene	# 0.410	0.443	0.430	0.475	0.484
2-Chloronaphthalene	1.042	1.034	1.058	1.148	1.150
Dimethylphthalate	1.118	1.139	1.108	1.192	1.207
Acenaphthylene	1.622	1.629	1.620	1.771	1.756
2,6-Dinitrotoluene	0.238	0.260	0.264	0.288	0.290
Acenaphthene	* 0.937	0.930	0.925	1.000	0.991
2,4-Dinitrotoluene	0.287	0.319	0.333	0.362	0.369
Diethylphthalate	1.177	1.203	1.173	1.267	1.241
4-Chlorophenyl-phenylether	0.530	0.551	0.534	0.577	0.574
Fluorene	1.025	1.032	1.040	1.122	1.118
N-Nitrosodiphenylamine (1)	* 0.407	0.401	0.405	0.425	0.421
4-Bromophenyl-phenylether	0.205	0.211	0.207	0.225	0.229
Hexachlorobenzene	0.244	0.257	0.253	0.270	0.278
Phenanthrene	0.845	0.865	0.872	0.934	0.959
Anthracene	0.846	0.888	0.897	0.968	0.991
Di-n-Butylphthalate	1.205	1.282	1.258	1.357	1.386
Fluoranthene	* 0.931	0.957	0.966	1.018	1.070
Pyrene	0.918	0.964	0.970	1.058	1.038
Butylbenzylphthalate	0.531	0.545	0.531	0.577	0.573
3,3'-Dichlorobenzidine	0.376	0.381	0.368	0.390	0.392
Benzo(a)anthracene	0.960	0.968	0.973	1.048	1.058
Chrysene	0.900	0.913	0.909	0.979	0.990
bis(2-Ethylhexyl)phthalate	0.690	0.756	0.736	0.814	0.804
Di-n-Octyl phthalate	* 1.273	1.406	1.437	1.566	1.514

(1) Cannot be separated from Diphenylamine

0000063

6C

## SEMIVOLATILE ORGANICS INTITIAL CALIBRATION DATA

Lab Name: Roy F. Weston, Inc.Contract: 6720-02-15Case No.: LE CARPENTERRFW Lot: 9301L306Instrument ID: HP5971ACalibration Date(s): 02/04/93 02/04/93

Min RRF for SPCC(#) = 0.050

Max %RSD for CCC(\*) = 30.0%

LAB FILE ID:	RRF20 = <u>A020404</u>	RRF50 = <u>A020403</u>	RRF80 = <u>A020405</u>	RRF120= <u>A020406</u>	RRF160= <u>A020407</u>	RRF	% RSD
COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	RRF	% RSD
Benzo(b)fluoranthene	0.976	1.011	1.024	1.054	1.059	1.025	3.3
Benzo(k)fluoranthene	0.934	0.929	0.957	1.052	1.057	0.986	6.5
Benzo(a)pyrene	* 0.902	0.904	0.926	0.994	0.990	0.943	4.8*
Indeno(1,2,3-cd)pyrene	0.899	0.932	0.937	1.039	1.046	0.971	6.9
Dibenzo(a,h)anthracene	0.778	0.794	0.803	0.885	0.899	0.832	6.7
Benzo(g,h,i)perylene	0.813	0.816	0.801	0.876	0.883	0.838	4.6
N-Nitrosodimethylamine	0.621	0.622	0.640	0.651	0.673	0.641	3.4
Benzidine	0.284	0.183	0.134	0.132	0.155	0.178	35.4
Nitrobenzene-d5	0.336	0.352	0.348	0.366	0.372	0.355	4.1
2-Fluorobiphenyl	1.270	1.260	1.287	1.389	1.403	1.322	5.2
p-Terphenyl-d14	0.854	0.896	0.886	0.966	0.953	0.911	5.2

FORM VI SV-2

01/89 Rev.

0000367

## QUANT REPORT

Operator ID: TAS Date Acquired: 4 Feb 93 10:59 am

Data File: C:\CHEMPC\DATA\A020404.D

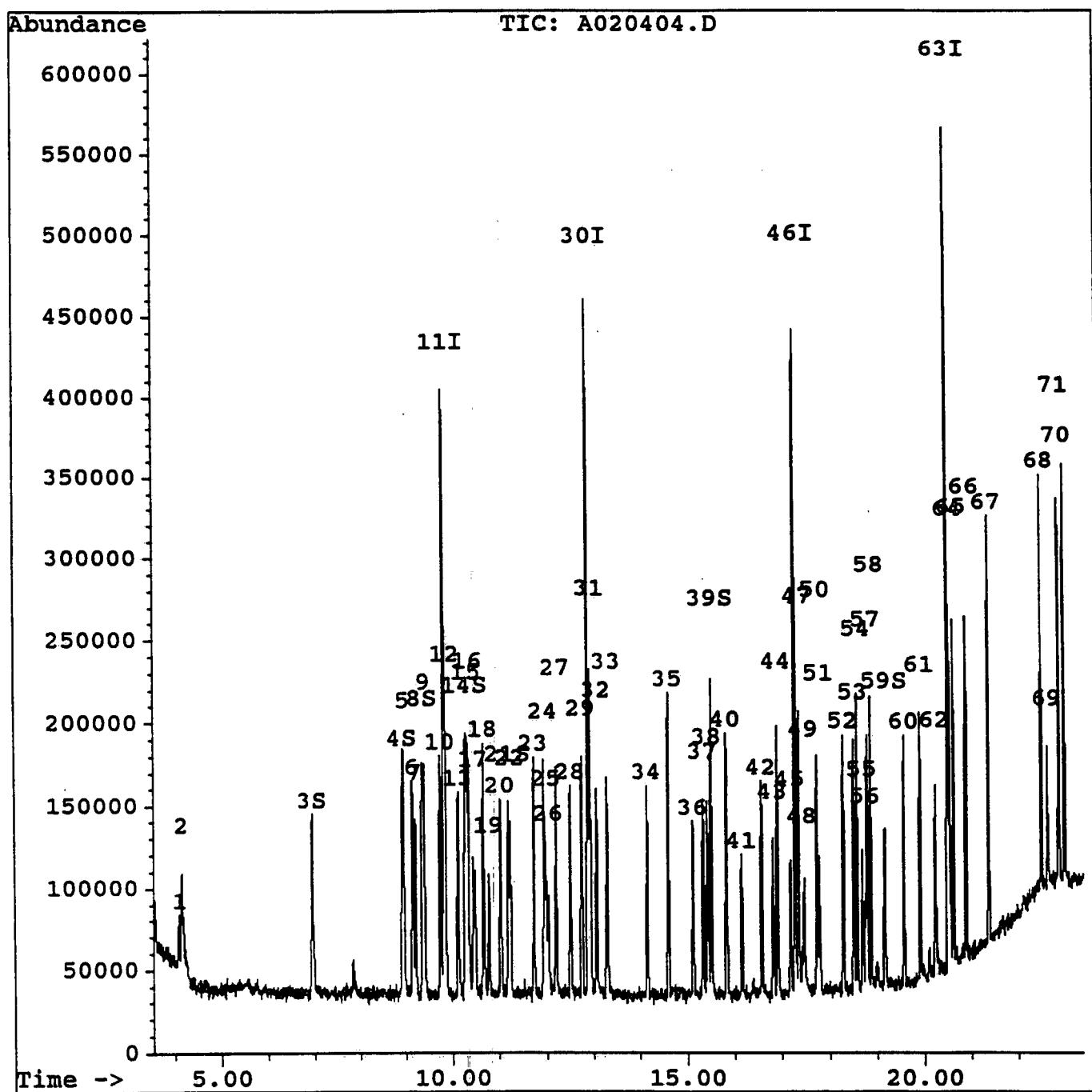
Name: SSTD20,20 NG BNA STD

Misc: 30M RTX5,A020401,DIL1.0,5971A,2ULINJ

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration

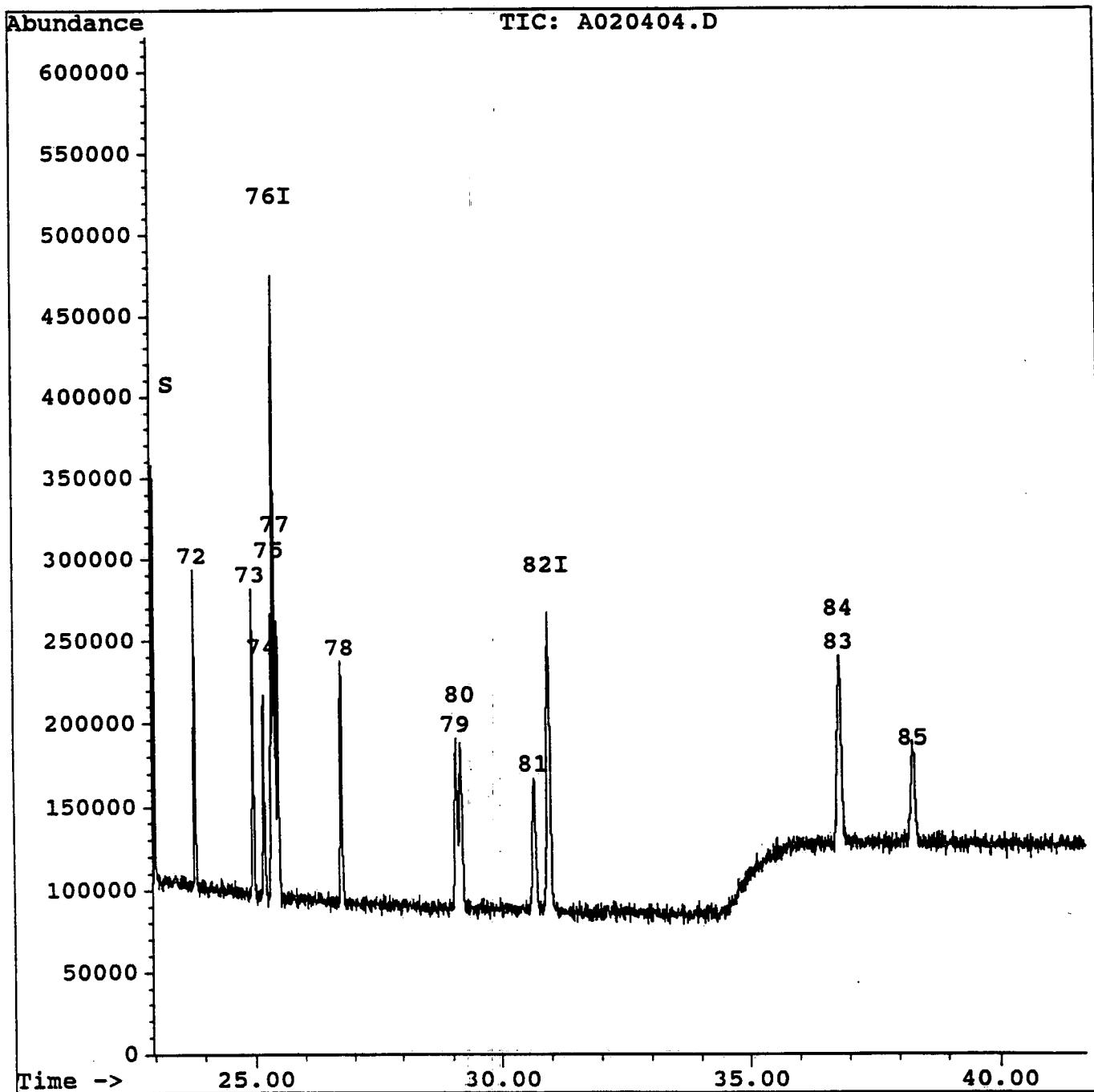


0000065

## QUANT REPORT

Operator ID: TAS Date Acquired: 4 Feb 93 10:59 am  
Data File: C:\CHEMPC\DATA\A020404.D  
Name: SSTD20,20 NG BNA STD  
Misc: 30M RTX5,A020401,DIL1.0,5971A,2ULINJ  
Method: 625RTE.M  
Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration



0000068

## QUANT REPORT

Operator ID: TAS Date Acquired: 4 Feb 93 10:59 am

Data File: C:\CHEMPC\DATA\A020404.D

Name: SSTD20,20 NG BNA STD

Misc: 30M RTX5,A020401,DIL1.0,5971A,2ULINJ

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration

## Internal Standards

	Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
11)	1,4-Dichlorobenzene-d4	9.81	152	120325	40.00	ul/l	-0.01
30)	Naphthalene-d8	12.88	136	399302	40.00	ul/l	-0.01
46)	Acenaphthene-d10	17.28	164	172919	40.00	ul/l	-0.01
63)	Phenanthrene-d10	20.49	188	293189	40.00	ul/l	-0.01
76)	Chrysene-d12	25.40	240	302435	40.00	ul/l	-0.01
82)	Perylene-d12	30.95	264	271854	40.00	ul/l	-0.03

## Surrogate Compounds

					%Recovery
3)	2-Fluorophenol	6.96	112	85542	19.34 ul/l 19.34%
4)	Phenol-d5	8.92	99	89290	20.51 ul/l 20.51%
8)	2-Chlorophenol-d4	9.35	132	78023	19.93 ul/l 19.93%
14)	1,2-Dichlorobenzene-d4	10.27	152	51169	19.73 ul/l 39.46%
21)	Nitrobenzene-d5	11.19	82	67005	18.92 ul/l 37.84%
39)	2-Fluorobiphenyl	15.51	172	109820	20.39 ul/l 40.79%
59)	2,4,6-Tribromophenol	19.17	330	17664	19.04 ul/l 19.04%
71)	p-Terphenyl-d14	23.00	244	129081	19.84 ul/l 39.68%

## Target Compounds

					ISTD#
1)	N-nitrosodimethylamine	4.09	74	37335	18.07 ul/l 001
2)	Pyridine	4.14	79	69588	15.56 ul/l 001#
5)	Phenol	8.95	94	83260	20.22 ul/l 001#
6)	Aniline	9.14	93	87150	19.97 ul/l 001
7)	bis(2-Chloroethyl)ether	9.21	93	69261	19.14 ul/l 1.151 001
9)	2-Chlorophenol	9.39	128	75102	20.46 ul/l 001#
10)	1,3-Dichlorobenzene	9.73	146	74972	20.15 ul/l 001
12)	1,4-Dichlorobenzene	9.85	146	75426	19.58 ul/l 001#
13)	Benzyl alcohol	10.11	108	42282	20.16 ul/l 001
15)	1,2-Dichlorobenzene	10.30	146	71444	19.25 ul/l 001#
16)	2-Methylphenol	10.34	108	61380	20.44 ul/l 001
17)	bis(2-Chloroisopropyl)ether	10.44	45	132311	20.70 ul/l 001#
18)	4-Methylphenol	10.66	108	62294	20.44 ul/l 001
19)	n-Nitroso-di-n-propylamine	10.77	70	24997	19.18 ul/l 001
20)	Hexachloroethane	11.02	117	37625	19.41 ul/l 001
22)	Nitrobenzene	11.23	77	61477	19.21 ul/l 002
23)	Isophorone	11.73	82	118499	19.51 ul/l 002
24)	2,4-Dimethylphenol	11.94	107	57488	20.13 ul/l 002
25)	2-Nitrophenol	11.98	139	33411	20.52 ul/l 002
26)	Benzoic Acid	12.03	122	31199	19.17 ul/l 002#
27)	bis(2-Chloroethoxy)methane	12.20	93	77661	19.42 ul/l 002#
28)	2,4-Dichlorophenol	12.50	162	46182	20.10 ul/l 002
29)	1,2,4-Trichlorobenzene	12.75	180	53355	19.87 ul/l 002
31)	Naphthalene	12.93	128	175481	19.66 ul/l 002
32)	4-Chloroaniline	13.06	127	75278	20.36 ul/l 002
33)	Hexachlorobutadiene	13.28	225	33490	18.55 ul/l 002

(#) = qualifier out of range

## QUANT REPORT

Operator ID: TAS Date Acquired: 4 Feb 93 10:59 am

Data File: C:\CHEMPC\DATA\A020404.D

Name: SSTD20,20 NG BNA STD

Misc: 30M RTX5,A020401,DIL1.0,5971A,2ULINJ

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration

Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
34) 4-Chloro-3-methylphenol	14.15	107	48226	20.14	ul/l	002
35) 2-Methylnaphthalene	14.60	142	100634	19.11	ul/l	002
36) Hexachlorocyclopentadiene	15.13	237	35431	19.01	ul/l	003
37) 2,4,6-Trichlorophenol	15.34	196	31981	21.03	ul/l	003
38) 2,4,5-Trichlorophenol	15.43	196	35419	20.89	ul/l	003
40) 2-Chloronaphthalene	15.83	162	90071	20.24	ul/l	003
41) 2-Nitroaniline	16.15	65	28861	19.12	ul/l	003
42) Dimethylphthalate	16.58	163	96652	19.70	ul/l	003#
43) 2,6-Dinitrotoluene	16.82	165	20615	19.27	ul/l	003#
44) Acenaphthylene	16.91	152	140259	19.82	ul/l	003
45) 3-Nitroaniline	17.18	138	26066	18.26	ul/l	003#
47) Acenaphthene	17.36	153	80981	20.24	ul/l	003
48) 2,4-Dinitrophenol	17.43	184	7424	137.23	ul/l	003#
49) 4-Nitrophenol	17.48	109	13952	21.36	ul/l	003
50) Dibenzofuran	17.74	168	114695	19.66	ul/l	003
51) 2,4-Dinitrotoluene	17.79	165	24793	17.89	ul/l	003#
52) Diethylphthalate	18.29	149	101774	19.41	ul/l	003#
53) 4-Chlorophenyl-phenylether	18.51	204	45852	19.66	ul/l	003
54) Fluorene	18.59	166	88654	20.13	ul/l	003
55) 4-Nitroaniline	18.70	138	27027	18.78	ul/l	003
56) 4,6-Dinitro-2-methylphenol	18.76	198	12666	17.34	ul/l	004
57) n-Nitrosodiphenylamine	18.80	169	59711	19.76	ul/l	004
58) 1,2-Diphenylhydrazine	18.87	77	115144	19.15	ul/l	004
60) 4-Bromophenyl-phenylether	19.57	248	30005	19.20	ul/l	004#
61) Hexachlorobenzene	19.91	284	35781	19.22	ul/l	004
62) Pentachlorophenol	20.23	266	20362	18.15	ul/l	004#
64) Phenanthrene	20.54	178	123875	19.52	ul/l	004
65) Anthracene	20.61	178	124044	19.19	ul/l	004
66) Carbazole	20.89	167	123300	19.77	ul/l	004
67) Di-n-butylphthalate	21.36	149	176608	18.21	ul/l	004
68) Fluoranthene	22.49	202	136408	19.11	ul/l	004
69) Benzidine	22.63	184	41647	21.35	ul/l	004#
70) Pyrene	22.88	202	138749	19.92	ul/l	005
72) Butylbenzylphthalate	23.81	149	80316	19.78	ul/l	005
73) bis(2-Ethylhexyl)phthalate	24.96	149	104356	18.20	ul/l	005#
74) 3,3'-Dichlorobenzidine	25.18	252	56851	19.95	ul/l	005
75) Benzo[a]anthracene	25.34	228	145214	19.90	ul/l	005
77) Chrysene	25.46	228	136066	19.84	ul/l	005
78) Di-n-octylphthalate	26.76	149	173102	17.19	ul/l	006
79) Benzo[b]fluoranthene	29.09	252	132606	18.74	ul/l	006
80) Benzo[k]fluoranthene	29.19	252	126888	19.25	ul/l	006
81) Benzo[a]pyrene	30.66	252	122581	19.24	ul/l	006
83) Indeno[1,2,3-cd]pyrene	36.83	276	122217	19.77	ul/l	006
84) Dibenz[a,h]anthracene	36.83	278	105747	20.00	ul/l	006
85) Benzo[g,h,i]perylene	38.31	276	110442	20.27	ul/l	006#

(#) = qualifier out of range

Q U A N T I T A T I O N

QUANT REPORT

Operator ID: KAD Date Acquired: 4 Feb 93 10:09 am

Data File: C:\CHEMPC\DATA\A020403.D

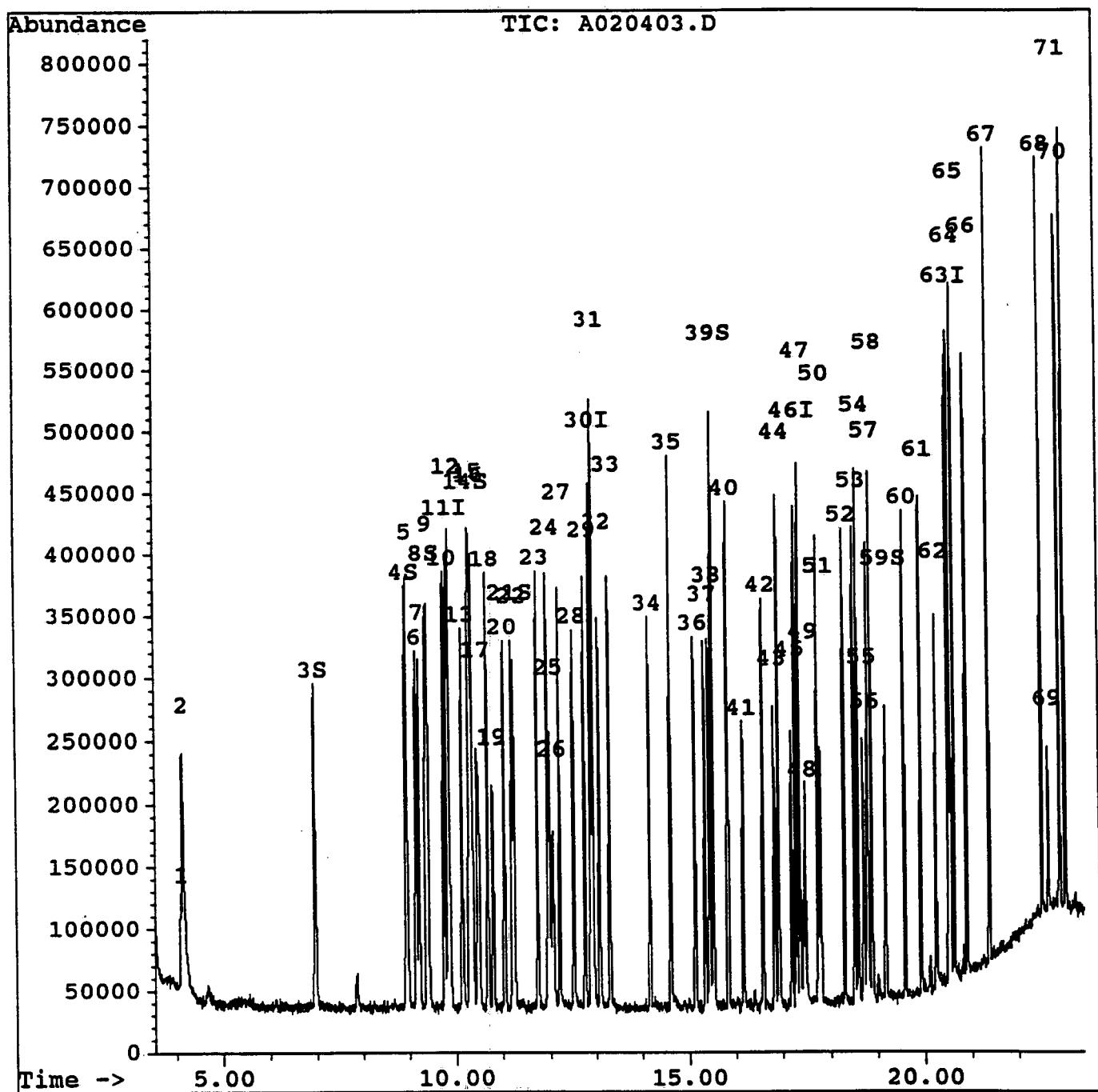
Name: SSTD50,50 NG BNA STD

Misc: 30M RTX5,A020401,DIL 1.0,HP5971A,2UL INJ

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration



000069

QUANT REPORT

Operator ID: KAD Date Acquired: 4 Feb 93 10:09 am

Data File: C:\CHEMPC\DATA\A020403.D

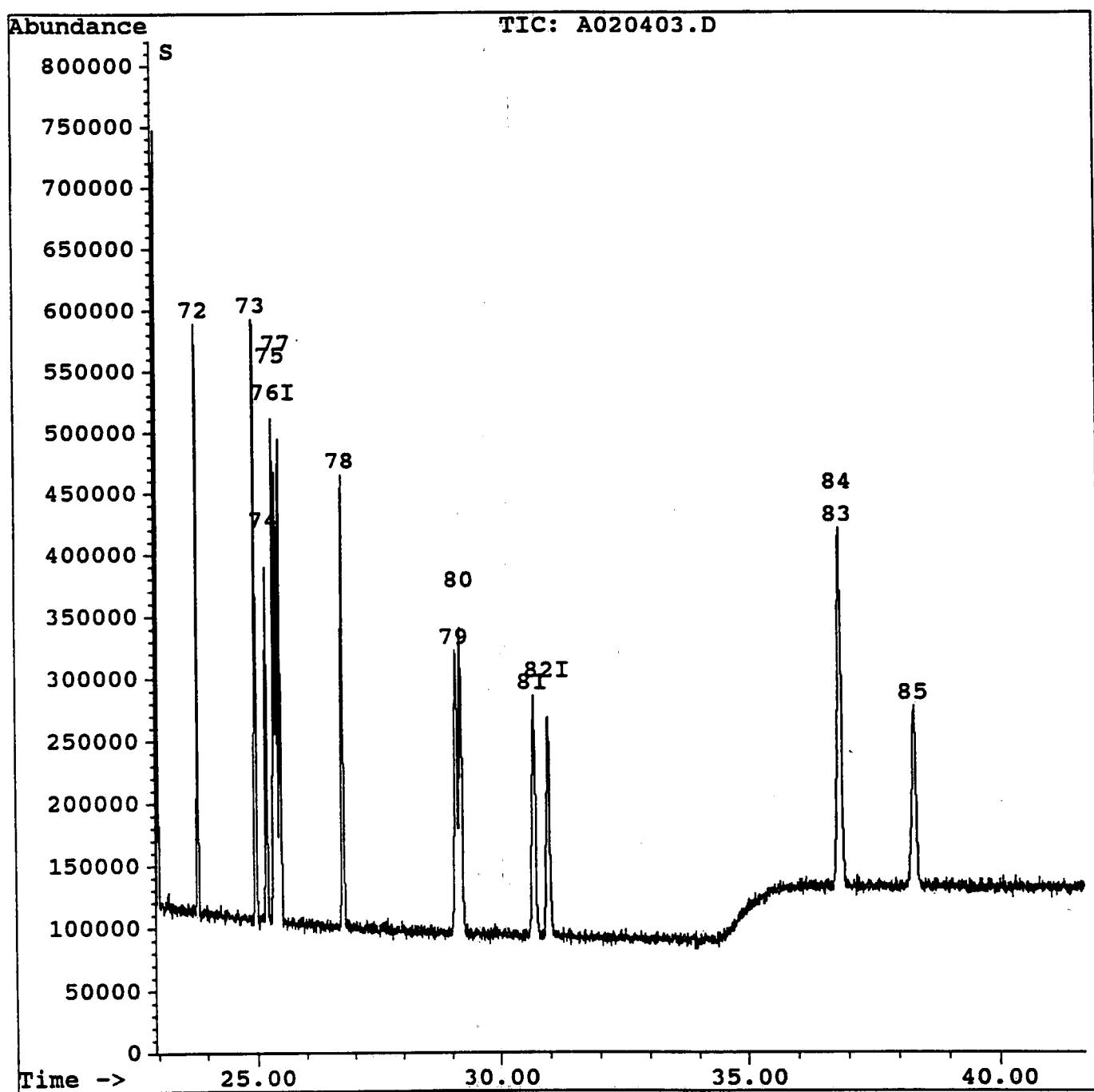
Name: SSTD50,50 NG BNA STD

Misc: 30M RTX5,A020401,DIL 1.0,HP5971A,2UL INJ

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration



0000070

## QUANT REPORT

Operator ID: KAD Date Acquired: 4 Feb 93 10:09 am

Data File: C:\CHEMPC\DATA\A020403.D

Name: SSTD50,50 NG BNA STD

Misc: 30M RTX5,A020401,DIL 1.0,HP5971A,2UL INJ

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration

## Internal Standards

Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
11) 1,4-Dichlorobenzene-d4	9.81	152	119923	40.00	ul/l	-0.01
30) Naphthalene-d8	12.88	136	393938	40.00	ul/l	-0.01
46) Acenaphthene-d10	17.28	164	175152	40.00	ul/l	-0.01
63) Phenanthrene-d10	20.50	188	289434	40.00	ul/l	-0.00
76) Chrysene-d12	25.40	240	290062	40.00	ul/l	-0.01
82) Perylene-d12	30.97	264	269323	40.00	ul/l	-0.02

## Surrogate Compounds

				%Recovery
3) 2-Fluorophenol	6.96	112	194405	44.09 ul/l 44.09%
4) Phenol-d5	8.93	99	206228	47.54 ul/l 47.54%
8) 2-Chlorophenol-d4	9.36	132	185296	47.50 ul/l 47.50%
14) 1,2-Dichlorobenzene-d4	10.27	152	122924	47.56 ul/l 95.11%
21) Nitrobenzene-d5	11.19	82	173338	49.61 ul/l 99.22%
39) 2-Fluorobiphenyl	15.52	172	275788	50.56 ul/l 101.12%
59) 2,4,6-Tribromophenol	19.18	330	45189	49.34 ul/l 49.34%
71) p-Terphenyl-d14	23.01	244	324692	52.04 ul/l 104.07%

## Target Compounds

				ISTD#
1) N-nitrosodimethylamine	4.10	74	93186	45.25 ul/l 001m
2) Pyridine	4.14	79	193524	43.41 ul/l 001
5) Phenol	8.96	94	192343	46.88 ul/l 001
6) Aniline	9.15	93	207978	47.83 ul/l 001
7) bis(2-Chloroethyl)ether	9.21	93	178016	49.35 ul/l 1.15% 001
9) 2-Chlorophenol	9.40	128	177208	48.43 ul/l 001
10) 1,3-Dichlorobenzene	9.74	146	180576	48.70 ul/l 001
12) 1,4-Dichlorobenzene	9.85	146	183394	47.77 ul/l 001
13) Benzyl alcohol	10.12	108	102618	49.10 ul/l 001
15) 1,2-Dichlorobenzene	10.31	146	177707	48.05 ul/l 001
16) 2-Methylphenol	10.34	108	145429	48.60 ul/l 001
17) bis(2-Chloroisopropyl)ethane	10.45	45	316339	49.66 ul/l 001#
18) 4-Methylphenol	10.66	108	150087	49.41 ul/l 001
19) n-Nitroso-di-n-propylamine	10.78	70	65361	50.31 ul/l 001
20) Hexachloroethane	11.02	117	90989	47.09 ul/l 001
22) Nitrobenzene	11.23	77	154973	49.08 ul/l 002
23) Isophorone	11.73	82	298746	49.86 ul/l 002
24) 2,4-Dimethylphenol	11.95	107	137852	48.92 ul/l 002
25) 2-Nitrophenol	11.99	139	83829	52.18 ul/l 002
26) Benzoic Acid	12.07	122	77832	48.48 ul/l 002
27) bis(2-Chloroethoxy)methane	12.21	93	191318	48.49 ul/l 002#
28) 2,4-Dichlorophenol	12.51	162	111343	49.12 ul/l 002
29) 1,2,4-Trichlorobenzene	12.76	180	129665	48.95 ul/l 002
31) Naphthalene	12.93	128	443628	50.39 ul/l 002
32) 4-Chloroaniline	13.07	127	178599	48.96 ul/l 002
33) Hexachlorobutadiene	13.29	225	85110	47.78 ul/l 002

(#) = qualifier out of range

000071

## QUANT REPORT

Operator ID: KAD Date Acquired: 4 Feb 93 10:09 am

Data File: C:\CHEMPC\DATA\A020403.D

Name: SSTD50,50 NG BNA STD

Misc: 30M RTX5,A020401,DIL 1.0,HP5971A,2UL INJ

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration

Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
34) 4-Chloro-3-methylphenol	14.16	107	115258	48.79	ul/l	002
35) 2-Methylnaphthalene	14.61	142	252695	48.65	ul/l	002
36) Hexachlorocyclopentadiene	15.13	237	96960	51.37	ul/l	003
37) 2,4,6-Trichlorophenol	15.34	196	75767	49.18	ul/l	003
38) 2,4,5-Trichlorophenol	15.43	196	85872	50.00	ul/l	003
40) 2-Chloronaphthalene	15.84	162	226476	50.25	ul/l	003
41) 2-Nitroaniline	16.16	65	75561	49.41	ul/l	003
42) Dimethylphthalate	16.58	163	249346	50.18	ul/l	003#
43) 2,6-Dinitrotoluene	16.83	165	56916	52.52	ul/l	003
44) Acenaphthylene	16.91	152	356758	49.76	ul/l	003
45) 3-Nitroaniline	17.19	138	72247	49.95	ul/l	003#
47) Acenaphthene	17.36	153	203674	50.25	ul/l	003
48) 2,4-Dinitrophenol	17.44	184	22752	415.20	ul/l	003#
49) 4-Nitrophenol	17.48	109	32969	49.82	ul/l	003
50) Dibenzofuran	17.74	168	296524	50.17	ul/l	003
51) 2,4-Dinitrotoluene	17.80	165	69924	49.81	ul/l	003#
52) Diethylphthalate	18.30	149	263420	49.59	ul/l	003
53) 4-Chlorophenyl-phenylether	18.51	204	120609	51.04	ul/l	003#
54) Fluorene	18.59	166	225982	50.66	ul/l	003
55) 4-Nitroaniline	18.71	138	66784	45.82	ul/l	003
56) 4,6-Dinitro-2-methylphenol	18.76	198	38639	53.59	ul/l	004
57) n-Nitrosodiphenylamine	18.80	169	145160	48.66	ul/l	004
58) 1,2-Diphenylhydrazine	18.88	77	287898	48.50	ul/l	004
60) 4-Bromophenyl-phenylether	19.57	248	76241	49.43	ul/l	004#
61) Hexachlorobenzene	19.92	284	93010	50.60	ul/l	004
62) Pentachlorophenol	20.24	266	56967	51.45	ul/l	004
64) Phenanthrene	20.55	178	312907	49.95	ul/l	004
65) Anthracene	20.62	178	321111	50.33	ul/l	004
66) Carbazole	20.89	167	289073	46.95	ul/l	004
67) Di-n-butylphthalate	21.36	149	463717	48.43	ul/l	004
68) Fluoranthene	22.49	202	346229	49.12	ul/l	004
69) Benzidine	22.63	184	66235	34.39	ul/l	004#
70) Pyrene	22.88	202	349634	52.34	ul/l	005
72) Butylbenzylphthalate	23.81	149	197753	50.79	ul/l	005
73) bis(2-Ethylhexyl)phthalate	24.97	149	273999	49.82	ul/l	005#
74) 3,3'-Dichlorobenzidine	25.19	252	138308	50.61	ul/l	005
75) Benzo[a]anthracene	25.34	228	351025	50.15	ul/l	005
77) Chrysene	25.47	228	330938	50.31	ul/l	005
78) Di-n-octylphthalate	26.76	149	473214	47.43	ul/l	006
79) Benzo[b]fluoranthene	29.10	252	340412	48.56	ul/l	006
80) Benzo[k]fluoranthene	29.21	252	312596	47.88	ul/l	006
81) Benzo[a]pyrene	30.69	252	304392	48.22	ul/l	006
83) Indeno[1,2,3-cd]pyrene	36.84	276	313801	51.24	ul/l	006
84) Dibenz[a,h]anthracene	36.85	278	267424	51.05	ul/l	006
85) Benzo[g,h,i]perylene	38.33	276	274784	50.90	ul/l	006

(#) = qualifier out of range

0000072

## QUANT REPORT

Operator ID: TAS Date Acquired: 4 Feb 93 11:46 am

Data File: C:\CHEMPC\DATA\A020405.D

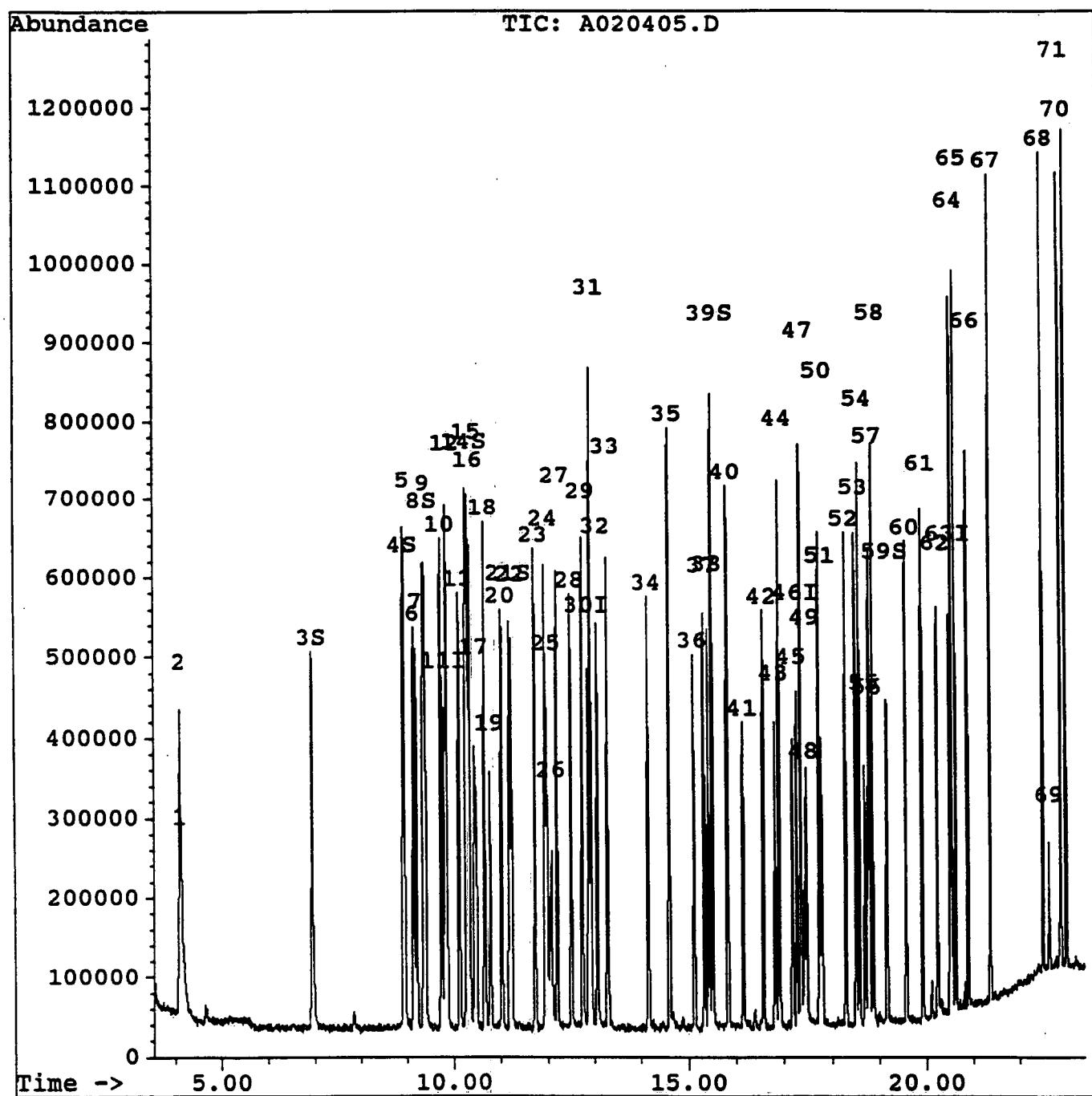
Name: SSTD80,80 NG BNA STD

Misc: 30M RTX5,A020401,DIL1.0,5971A,2ULINJ

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration



0000073

QUANT REPORT

Operator ID: TAS Date Acquired: 4 Feb 93 11:46 am

Data File: C:\CHEMPC\DATA\A020405.D

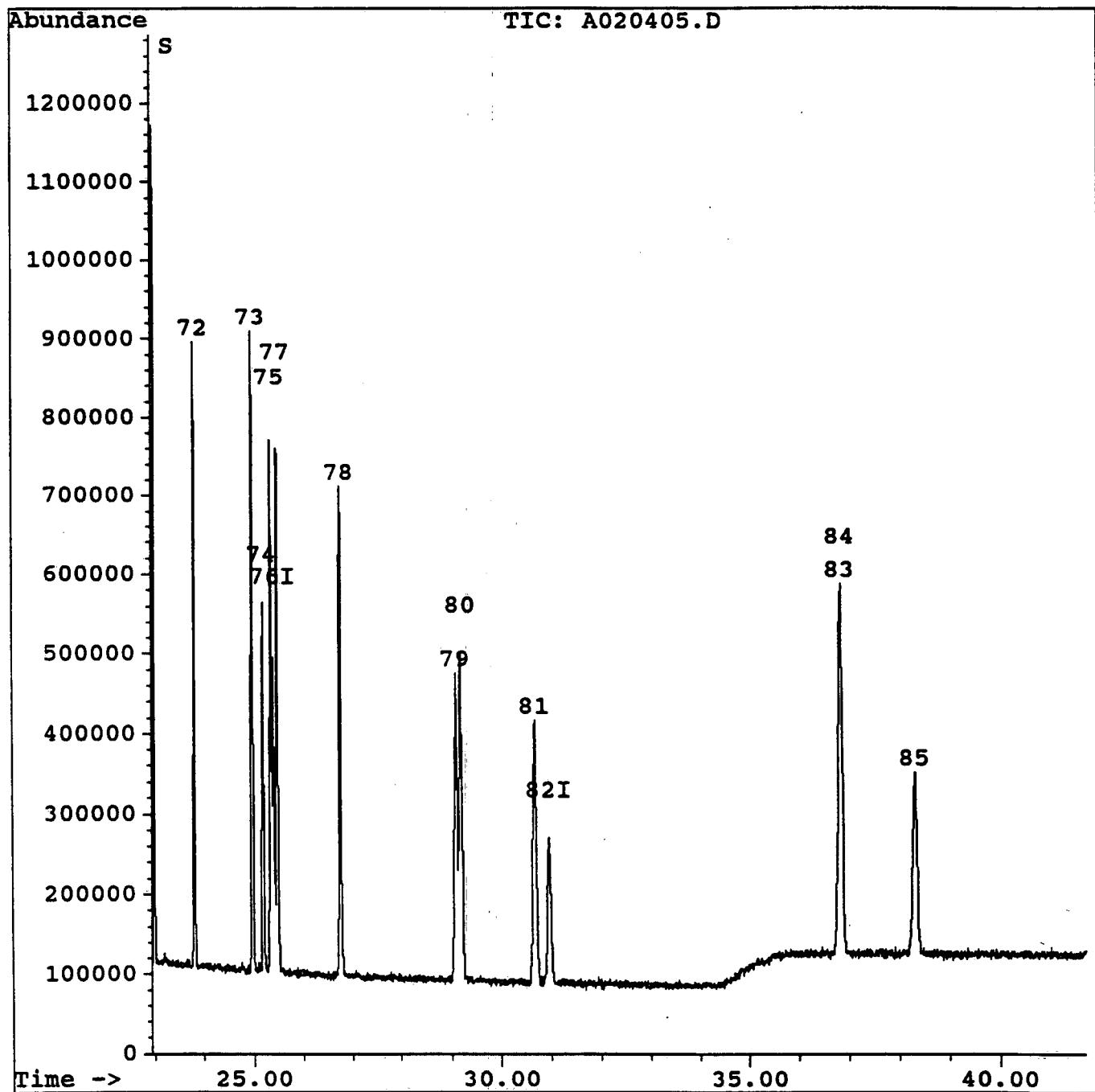
Name: SSTD80,80 NG BNA STD

Misc: 30M RTX5,A020401,DIL1.0,5971A,2ULINJ

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration



## QUANT REPORT

Operator ID: TAS Date Acquired: 4 Feb 93 11:46 am

Data File: C:\CHEMPC\DATA\A020405.D

Name: SSTD80,80 NG BNA STD

Misc: 30M RTX5,A020401,DIL1.0,5971A,2ULINJ

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration

## Internal Standards

Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
11) 1,4-Dichlorobenzene-d4	9.81	152	132538	40.00	ul/l	-0.01
30) Naphthalene-d8	12.87	136	424951	40.00	ul/l	-0.02
46) Acenaphthene-d10	17.27	164	182604	40.00	ul/l	-0.02
63) Phenanthrene-d10	20.50	188	300093	40.00	ul/l	-0.01
76) Chrysene-d12	25.40	240	305613	40.00	ul/l	-0.01
82) Perylene-d12	30.95	264	280395	40.00	ul/l	-0.03

## Surrogate Compounds

Compound	R.T.	Qion	Area	Conc	Unit	%Recovery
3) 2-Fluorophenol	6.96	112	352667	72.37	ul/l	72.37%
4) Phenol-d5	8.92	99	373404	77.88	ul/l	77.88%
8) 2-Chlorophenol-d4	9.35	132	336588	78.07	ul/l	78.07%
14) 1,2-Dichlorobenzene-d4	10.26	152	213899	74.88	ul/l	149.75%
21) Nitrobenzene-d5	11.18	82	295690	78.45	ul/l	156.90%
39) 2-Fluorobiphenyl	15.51	172	469944	82.64	ul/l	165.28%
59) 2,4,6-Tribromophenol	19.17	330	75937	79.96	ul/l	79.96%
71) p-Terphenyl-d14	23.00	244	541726	82.40	ul/l	164.80%

## Target Compounds

Compound	R.T.	Qion	Area	Conc	Unit	ISTD#
1) N-nitrosodimethylamine	4.09	74	169718	74.57	ul/l	001
2) Pyridine	4.11	79	350133	71.06	ul/l	001
5) Phenol	8.95	94	349792	77.14	ul/l	001
6) Aniline	9.14	93	360288	74.97	ul/l	001
7) bis(2-Chloroethyl)ether	9.21	93	295614	74.16	ul/l,115	001
9) 2-Chlorophenol	9.39	128	318517	78.77	ul/l	001
10) 1,3-Dichlorobenzene	9.73	146	310460	75.76	ul/l	001
12) 1,4-Dichlorobenzene	9.84	146	332683	78.40	ul/l	001
13) Benzyl alcohol	10.11	108	178849	77.43	ul/l	001
15) 1,2-Dichlorobenzene	10.29	146	305668	74.78	ul/l	001
16) 2-Methylphenol	10.34	108	251065	75.92	ul/l	001
17) bis(2-Chloroisopropyl)ether	10.44	45	545301	77.46	ul/l	001
18) 4-Methylphenol	10.65	108	265115	78.98	ul/l	001
19) n-Nitroso-di-n-propylamine	10.77	70	110393	76.89	ul/l	001
20) Hexachloroethane	11.01	117	159988	74.91	ul/l	001
22) Nitrobenzene	11.23	77	259725	76.26	ul/l	002
23) Isophorone	11.72	82	512333	79.27	ul/l	002
24) 2,4-Dimethylphenol	11.94	107	238553	78.47	ul/l	002
25) 2-Nitrophenol	11.98	139	150922	87.08	ul/l	002
26) Benzoic Acid	12.08	122	160922	92.92	ul/l	002
27) bis(2-Chloroethoxy)methane	12.19	93	338345	79.49	ul/l	002
28) 2,4-Dichlorophenol	12.50	162	196613	80.41	ul/l	002
29) 1,2,4-Trichlorobenzene	12.74	180	221214	77.42	ul/l	002
31) Naphthalene	12.92	128	763392	80.38	ul/l	002
32) 4-Chloroaniline	13.07	127	301765	76.69	ul/l	002
33) Hexachlorobutadiene	13.28	225	145895	75.93	ul/l	002

(#) = qualifier out of range

## QUANT REPORT

Operator ID: TAS Date Acquired: 4 Feb 93 11:46 am

Data File: C:\CHEMPC\DATA\A020405.D

Name: SSTD80,80 NG BNA STD

Misc: 30M RTX5,A020401,DIL1.0,5971A,2ULINJ

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration

Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
34) 4-Chloro-3-methylphenol	14.15	107	202782	79.57	ul/l	002
35) 2-Methylnaphthalene	14.60	142	432483	77.19	ul/l	002
36) Hexachlorocyclopentadiene	15.12	237	157011	79.79	ul/l	003
37) 2,4,6-Trichlorophenol	15.34	196	134259	83.60	ul/l	003
38) 2,4,5-Trichlorophenol	15.43	196	152467	85.15	ul/l	003
40) 2-Chloronaphthalene	15.83	162	386391	82.23	ul/l	003
41) 2-Nitroaniline	16.15	65	128148	80.38	ul/l	003
42) Dimethylphthalate	16.58	163	404650	78.11	ul/l	003
43) 2,6-Dinitrotoluene	16.82	165	96558	85.46	ul/l	003
44) Acenaphthylene	16.91	152	591472	79.14	ul/l	003
45) 3-Nitroaniline	17.19	138	119611	79.33	ul/l	003#
47) Acenaphthene	17.36	153	337777	79.94	ul/l	003
48) 2,4-Dinitrophenol	17.43	184	49440	865.41	ul/l	003#
49) 4-Nitrophenol	17.47	109	58250	84.44	ul/l	003
50) Dibenzofuran	17.74	168	490138	79.55	ul/l	003
51) 2,4-Dinitrotoluene	17.79	165	121489	83.01	ul/l	003#
52) Diethylphthalate	18.30	149	428369	77.36	ul/l	003
53) 4-Chlorophenyl-phenylether	18.51	204	195095	79.20	ul/l	003
54) Fluorene	18.58	166	379917	81.70	ul/l	003
55) 4-Nitroaniline	18.70	138	112596	74.09	ul/l	003
56) 4,6-Dinitro-2-methylphenol	18.77	198	75919	101.55	ul/l	004
57) n-Nitrosodiphenylamine	18.80	169	242900	78.52	ul/l	004
58) 1,2-Diphenlyhydrazine	18.87	77	474350	77.08	ul/l	004
60) 4-Bromophenyl-phenylether	19.57	248	123939	77.50	ul/l	004#
61) Hexachlorobenzene	19.92	284	151900	79.71	ul/l	004
62) Pentachlorophenol	20.23	266	97895	85.27	ul/l	004
64) Phenanthrene	20.54	178	523222	80.56	ul/l	004
65) Anthracene	20.62	178	538148	81.36	ul/l	004
66) Carbazole	20.88	167	424551	66.50	ul/l	004
67) Di-n-butylphthalate	21.35	149	755023	76.05	ul/l	004
68) Fluoranthene	22.49	202	579787	79.34	ul/l	004
69) Benzidine	22.63	184	80676	40.40	ul/l	004#
70) Pyrene	22.88	202	593182	84.28	ul/l	005
72) Butylbenzylphthalate	23.81	149	324766	79.17	ul/l	005
73) bis(2-Ethylhexyl)phthalate	24.97	149	449580	77.58	ul/l	005#
74) 3,3'-Dichlorobenzidine	25.18	252	224980	78.13	ul/l	005
75) Benzo[a]anthracene	25.34	228	594874	80.66	ul/l	005
77) Chrysene	25.47	228	555433	80.14	ul/l	005
78) Di-n-octylphthalate	26.76	149	805776	77.57	ul/l	006
79) Benzo[b]fluoranthene	29.10	252	574098	78.67	ul/l	006
80) Benzo[k]fluoranthene	29.20	252	536740	78.96	ul/l	006
81) Benzo[a]pyrene	30.67	252	519242	79.01	ul/l	006
83) Indeno[1,2,3-cd]pyrene	36.84	276	525466	82.42	ul/l	006
84) Dibenz[a,h]anthracene	36.85	278	450534	82.60	ul/l	006
85) Benzo[g,h,i]perylene	38.32	276	449308	79.94	ul/l	006

(#) = qualifier out of range

0000075

## QUANT REPORT

Operator ID: TAS Date Acquired: 4 Feb 93 12:34 pm

Data File: C:\CHEMPC\DATA\A020406.D

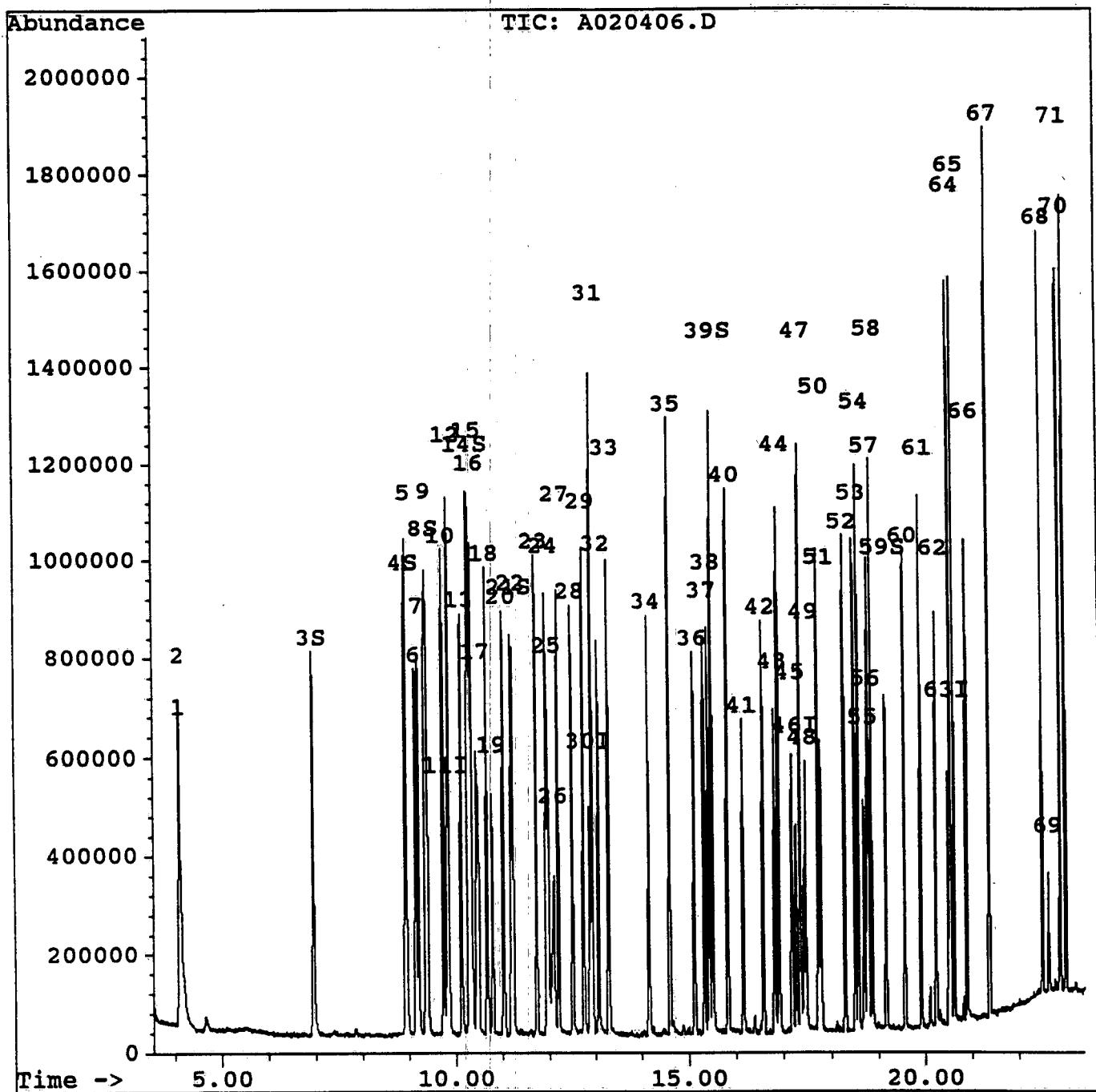
Name: SSTD120,120 NG BNA STD

Misc: 30M RTX5,A020401,DIL1.0,5971A,2ULINJ

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration



0000077

## QUANT REPORT

Operator ID: TAS Date Acquired: 4 Feb 93 12:34 pm

Data File: C:\CHEMPC\DATA\A020406.D

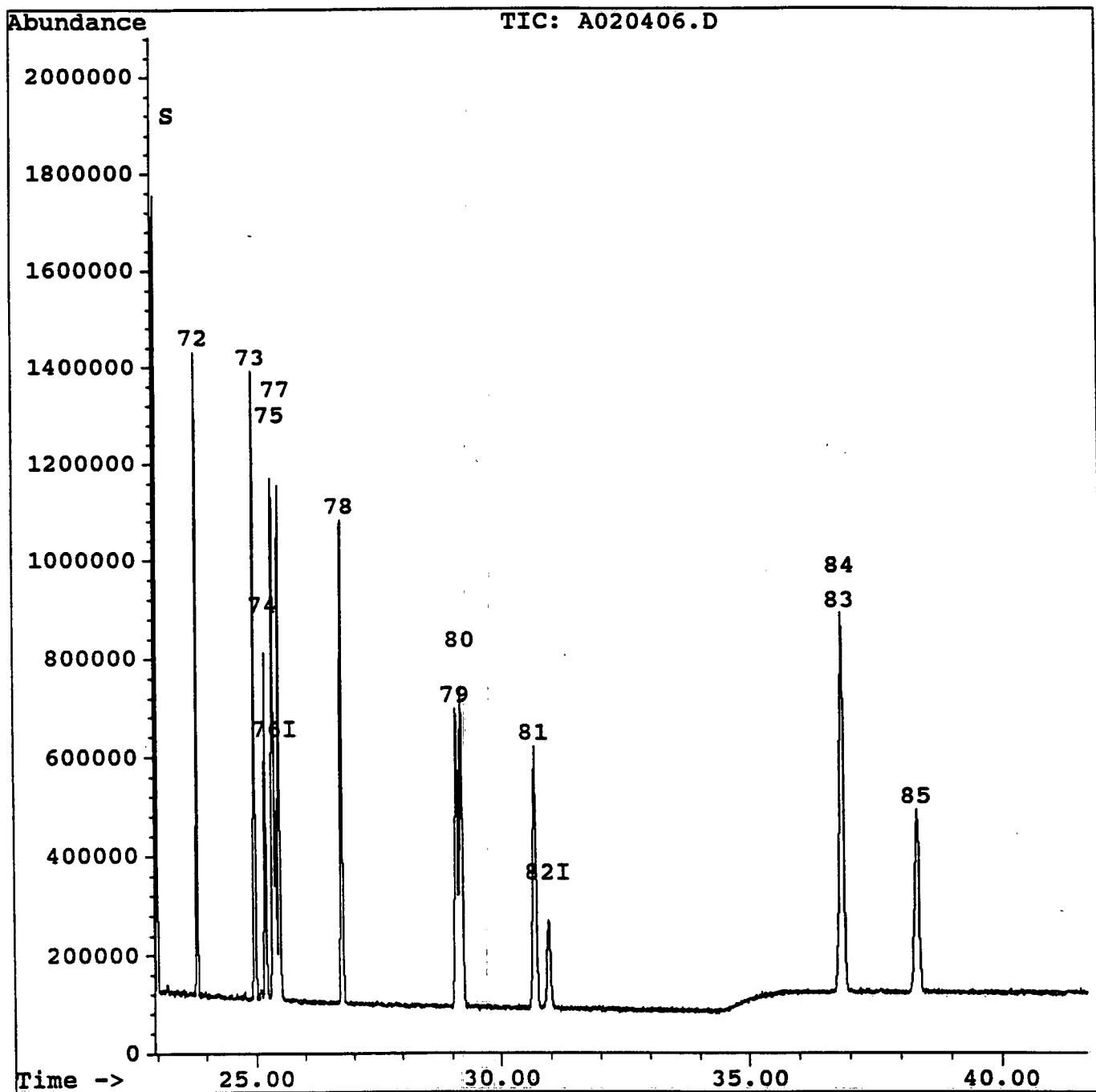
Name: SSTD120,120 NG BNA STD

Misc: 30M RTX5,A020401,DIL1.0,5971A,2ULINJ

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration



0000078

## QUANT REPORT

Operator ID: TAS Date Acquired: 4 Feb 93 12:34 pm

Data File: C:\CHEMPC\DATA\A020406.D

Name: SSTD120,120 NG BNA STD

Misc: 30M RTX5,A020401,DIL1.0,5971A,2ULINJ

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration

## Internal Standards

	Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
11)	1,4-Dichlorobenzene-d4	9.81	152	142092	40.00	ul/l	-0.01
30)	Naphthalene-d8	12.87	136	439847	40.00	ul/l	-0.02
46)	Acenaphthene-d10	17.28	164	186396	40.00	ul/l	-0.01
63)	Phenanthrene-d10	20.49	188	310331	40.00	ul/l	-0.01
76)	Chrysene-d12	25.40	240	301109	40.00	ul/l	-0.01
82)	Perylene-d12	30.95	264	279394	40.00	ul/l	-0.03

## Surrogate Compounds

					%Recovery
3)	2-Fluorophenol	6.95	112	580384	111.09 ul/l 111.09%
4)	Phenol-d5	8.93	99	586085	114.02 ul/l 114.02%
8)	2-Chlorophenol-d4	9.35	132	556847	120.48 ul/l 120.48%
14)	1,2-Dichlorobenzene-d4	10.26	152	346860	113.26 ul/l 226.51%
21)	Nitrobenzene-d5	11.18	82	483525	123.94 ul/l 247.87%
39)	2-Fluorobiphenyl	15.52	172	776857	133.83 ul/l 267.67%
59)	2,4,6-Tribromophenol	19.17	330	123771	126.03 ul/l 126.03%
71)	p-Terphenyl-d14	23.00	244	872540	134.71 ul/l 269.41%

## Target Compounds

					ISTD#
1)	N-nitrosodimethylamine	4.09	74	277557	113.75 ul/l 001
2)	Pyridine	4.11	79	536852	101.63 ul/l 001#
5)	Phenol	8.96	94	544672	112.04 ul/l 001
6)	Aniline	9.14	93	556138	107.94 ul/l 001
7)	bis(2-Chloroethyl)ether	9.20	93	492287	115.19 ul/l 001
9)	2-Chlorophenol	9.39	128	514434	118.67 ul/l 001
10)	1,3-Dichlorobenzene	9.73	146	519010	118.14 ul/l 001
12)	1,4-Dichlorobenzene	9.84	146	527154	115.88 ul/l 001
13)	Benzyl alcohol	10.12	108	291220	117.61 ul/l 001
15)	1,2-Dichlorobenzene	10.30	146	501335	114.40 ul/l 001
16)	2-Methylphenol	10.34	108	410006	115.64 ul/l 001
17)	bis(2-Chloroisopropyl)ethane	10.44	45	884975	117.25 ul/l 001#
18)	4-Methylphenol	10.66	108	411923	114.46 ul/l 001
19)	n-Nitroso-di-n-propylamine	10.78	70	177840	115.53 ul/l 001
20)	Hexachloroethane	11.01	117	262026	114.44 ul/l 001
22)	Nitrobenzene	11.23	77	425693	120.75 ul/l 002
23)	Isophorone	11.72	82	823357	123.07 ul/l 002
24)	2,4-Dimethylphenol	11.94	107	373127	118.58 ul/l 002
25)	2-Nitrophenol	11.98	139	244741	136.43 ul/l 002
26)	Benzoic Acid	12.11	122	265459	148.10 ul/l 002
27)	bis(2-Chloroethoxy)methane	12.19	93	543857	123.44 ul/l 002
28)	2,4-Dichlorophenol	12.50	162	316243	124.95 ul/l 002
29)	1,2,4-Trichlorobenzene	12.75	180	360559	121.91 ul/l 002
31)	Naphthalene	12.92	128	1257341	127.90 ul/l 002
32)	4-Chloroaniline	13.07	127	487890	119.79 ul/l 002
33)	Hexachlorobutadiene	13.28	225	237961	119.66 ul/l 002

(#) = qualifier out of range

## QUANT REPORT

Operator ID: TAS Date Acquired: 4 Feb 93 12:34 pm

Data File: C:\CHEMPC\DATA\A020406.D

Name: SSTD120,120 NG BNA STD

Misc: 30M RTX5,A020401,DIL1.0,5971A,2ULINJ

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration

Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
34) 4-Chloro-3-methylphenol	14.15	107	330517	125.30	ul/l	002
35) 2-Methylnaphthalene	14.60	142	728407	125.60	ul/l	002
36) Hexachlorocyclopentadiene	15.12	237	265570	132.22	ul/l	003
37) 2,4,6-Trichlorophenol	15.34	196	218002	132.98	ul/l	003
38) 2,4,5-Trichlorophenol	15.43	196	243939	133.47	ul/l	003
40) 2-Chloronaphthalene	15.83	162	641815	133.81	ul/l	003
41) 2-Nitroaniline	16.15	65	215079	132.17	ul/l	003
42) Dimethylphthalate	16.57	163	666631	126.06	ul/l	003
43) 2,6-Dinitrotoluene	16.82	165	161016	139.62	ul/l	003
44) Acenaphthylene	16.90	152	990196	129.79	ul/l	003
45) 3-Nitroaniline	17.19	138	192788	125.26	ul/l	003
47) Acenaphthene	17.36	153	559259	129.66	ul/l	003
48) 2,4-Dinitrophenol	17.43	184	89456	1534.00	ul/l	003
49) 4-Nitrophenol	17.48	109	94828	134.66	ul/l	003
50) Dibenzofuran	17.74	168	806954	128.31	ul/l	003
51) 2,4-Dinitrotoluene	17.80	165	202458	135.52	ul/l	003#
52) Diethylphthalate	18.30	149	708351	125.31	ul/l	003
53) 4-Chlorophenyl-phenylether	18.52	204	322452	128.23	ul/l	003#
54) Fluorene	18.58	166	627401	132.17	ul/l	003
55) 4-Nitroaniline	18.70	138	166159	107.11	ul/l	003
56) 4,6-Dinitro-2-methylphenol	18.77	198	131041	169.50	ul/l	004
57) n-Nitrosodiphenylamine	18.80	169	396107	123.83	ul/l	004
58) 1,2-Diphenlyhydrazine	18.87	77	776807	122.06	ul/l	004
60) 4-Bromophenyl-phenylether	19.57	248	209881	126.91	ul/l	004#
61) Hexachlorobenzene	19.91	284	251255	127.49	ul/l	004
62) Pentachlorophenol	20.23	266	169544	142.81	ul/l	004
64) Phenanthrene	20.54	178	869588	129.47	ul/l	004
65) Anthracene	20.62	178	901555	131.80	ul/l	004
66) Carbazole	20.88	167	633787	96.00	ul/l	004
67) Di-n-butylphthalate	21.36	149	1263403	123.05	ul/l	004
68) Fluoranthene	22.50	202	947538	125.38	ul/l	004
69) Benzidine	22.63	184	122877	59.50	ul/l	004#
70) Pyrene	22.88	202	955848	137.85	ul/l	005
72) Butylbenzylphthalate	23.81	149	521379	128.99	ul/l	005
73) bis(2-Ethylhexyl)phthalate	24.97	149	735082	128.75	ul/l	005#
74) 3,3'-Dichlorobenzidine	25.18	252	352316	124.19	ul/l	005
75) Benzo[a]anthracene	25.34	228	946445	130.24	ul/l	005
77) Chrysene	25.47	228	883928	129.44	ul/l	005
78) Di-n-octylphthalate	26.76	149	1312207	126.77	ul/l	006
79) Benzo[b]fluoranthene	29.10	252	883760	121.54	ul/l	006
80) Benzo[k]fluoranthene	29.21	252	881475	130.14	ul/l	006
81) Benzo[a]pyrene	30.68	252	833381	127.27	ul/l	006
83) Indeno[1,2,3-cd]pyrene	36.85	276	870550	137.03	ul/l	006
84) Dibenz[a,h]anthracene	36.86	278	742143	136.56	ul/l	006
85) Benzo[g,h,i]perylene	38.34	276	734351	131.12	ul/l	006

(#) = qualifier out of range

0000080

## QUANT REPORT

Operator ID: TAS Date Acquired: 4 Feb 93 1:22 pm

Data File: C:\CHEMPC\DATA\A020407.D

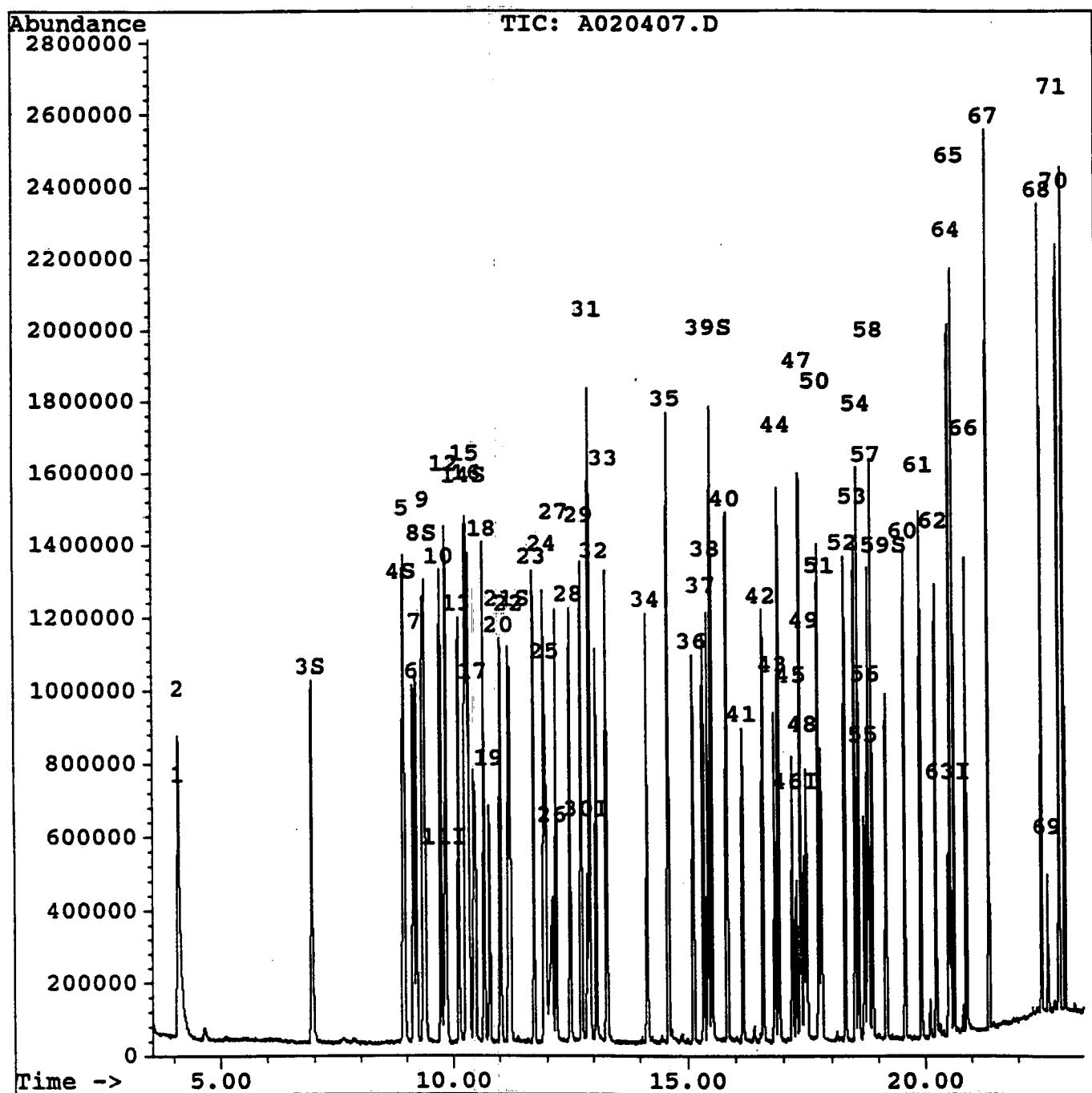
Name: SSTD160,160 NG BNA STD

Misc: 30M RTX5,A020401,DIL1.0,5971A,2ULINJ

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration



0000081

## QUANT REPORT

Operator ID: TAS Date Acquired: 4 Feb 93 1:22 pm

Data File: C:\CHEMPC\DATA\A020407.D

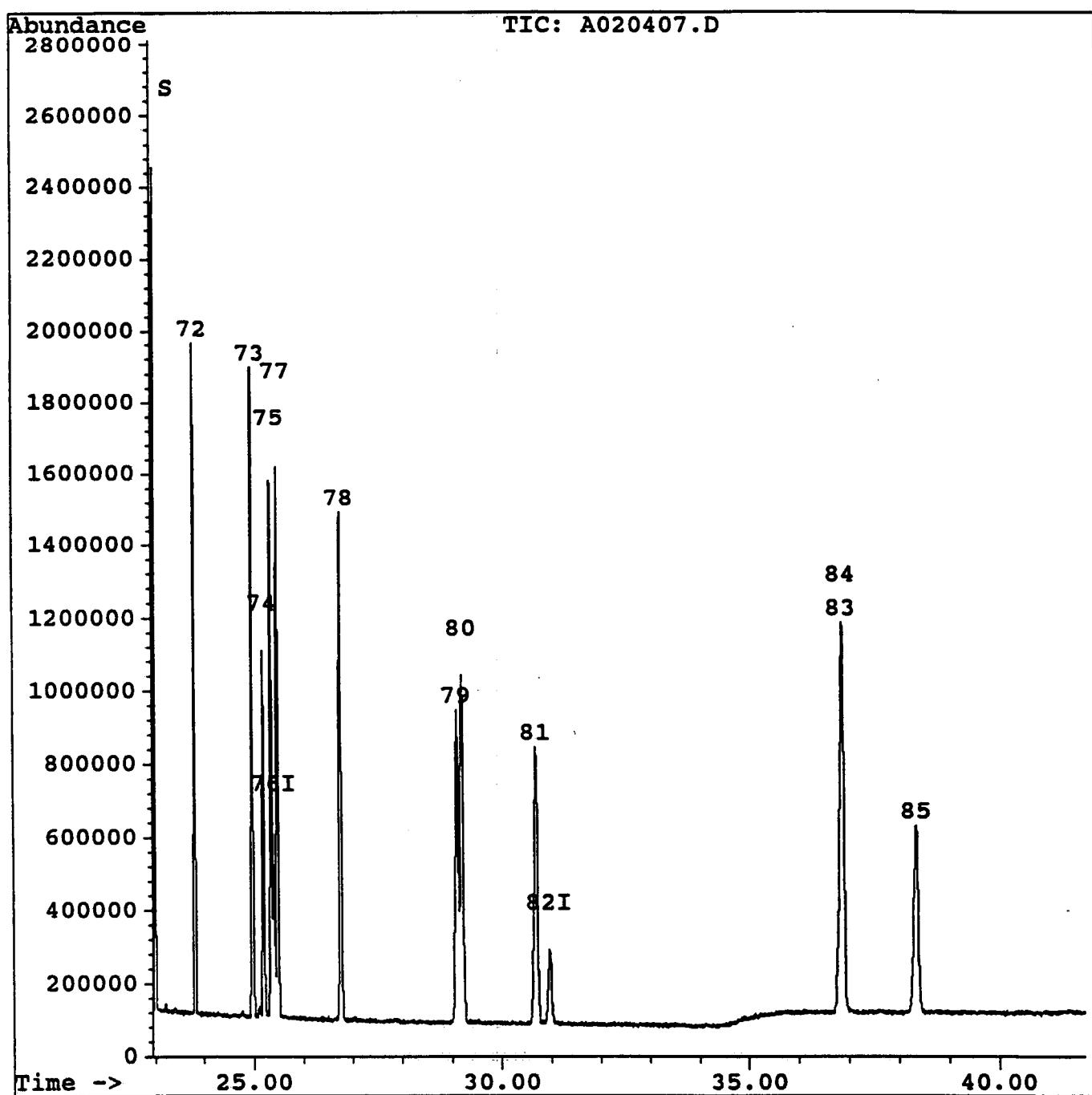
Name: SSTD160,160 NG BNA STD

Misc: 30M RTX5,A020401,DIL1.0,5971A,2ULINJ

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration



0000083

## QUANT REPORT

Operator ID: TAS Date Acquired: 4 Feb 93 1:22 pm

Data File: C:\CHEMPC\DATA\A020407.D

Name: SSTD160,160 NG BNA STD

Misc: 30M RTX5,A020401,DIL1.0,5971A,2ULINJ

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration

## Internal Standards

Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
11) 1,4-Dichlorobenzene-d4	9.81	152	137049	40.00	ul/l	-0.01
30) Naphthalene-d8	12.88	136	435313	40.00	ul/l	-0.01
46) Acenaphthene-d10	17.28	164	189625	40.00	ul/l	-0.02
63) Phenanthrene-d10	20.50	188	309935	40.00	ul/l	-0.00
76) Chrysene-d12	25.40	240	325306	40.00	ul/l	-0.01
82) Perylene-d12	30.96	264	304954	40.00	ul/l	-0.02

## Surrogate Compounds

Compound	R.T.	Qion	Area	Conc	Unit	%Recovery
3) 2-Fluorophenol	6.96	112	760714	150.96	ul/l	150.96%
4) Phenol-d5	8.93	99	800970	161.55	ul/l	161.55%
8) 2-Chlorophenol-d4	9.36	132	737569	165.45	ul/l	165.45%
14) 1,2-Dichlorobenzene-d4	10.26	152	461672	156.29	ul/l	312.58%
21) Nitrobenzene-d5	11.18	82	647643	167.73	ul/l	335.47%
39) 2-Fluorobiphenyl	15.51	172	1064082	180.19	ul/l	360.39%
59) 2,4,6-Tribromophenol	19.17	330	174684	178.10	ul/l	178.10%
71) p-Terphenyl-d14	23.00	244	1239431	177.12	ul/l	354.23%

## Target Compounds

Compound	R.T.	Qion	Area	Conc	Unit	ISTD#
1) N-nitrosodimethylamine	4.08	74	368708	156.67	ul/l	001
2) Pyridine	4.11	79	700774	137.54	ul/l	001#
5) Phenol	8.96	94	748674	159.66	ul/l	001
6) Aniline	9.14	93	745962	150.11	ul/l	001
7) bis(2-Chloroethyl)ether	9.21	93	652461	158.29	ul/l	001
9) 2-Chlorophenol	9.39	128	695613	166.36	ul/l	001
10) 1,3-Dichlorobenzene	9.73	146	681427	160.81	ul/l	001
12) 1,4-Dichlorobenzene	9.84	146	701254	159.82	ul/l	001
13) Benzyl alcohol	10.12	108	383004	160.37	ul/l	001
15) 1,2-Dichlorobenzene	10.30	146	659130	155.94	ul/l	001
16) 2-Methylphenol	10.34	108	562937	164.62	ul/l	001
17) bis(2-Chloroisopropyl)ether	10.44	45	1158861	159.19	ul/l	001#
18) 4-Methylphenol	10.66	108	578870	166.77	ul/l	001
19) n-Nitroso-di-n-propylamine	10.78	70	229733	154.74	ul/l	001
20) Hexachloroethane	11.01	117	347743	157.47	ul/l	001
22) Nitrobenzene	11.23	77	562860	161.32	ul/l	002
23) Isophorone	11.72	82	1094052	165.24	ul/l	002
24) 2,4-Dimethylphenol	11.94	107	518401	166.47	ul/l	002
25) 2-Nitrophenol	11.98	139	345112	194.39	ul/l	002
26) Benzoic Acid	12.13	122	360140	203.01	ul/l	002
27) bis(2-Chloroethoxy)methane	12.20	93	720414	165.22	ul/l	002
28) 2,4-Dichlorophenol	12.50	162	430914	172.04	ul/l	002
29) 1,2,4-Trichlorobenzene	12.75	180	487567	166.57	ul/l	002
31) Naphthalene	12.93	128	1701940	174.93	ul/l	002
32) 4-Chloroaniline	13.06	127	656034	162.75	ul/l	002
33) Hexachlorobutadiene	13.28	225	319688	162.43	ul/l	002

(#) = qualifier out of range

## QUANT REPORT

Operator ID: TAS Date Acquired: 4 Feb 93 1:22 pm

Data File: C:\CHEMPC\DATA\A020407.D

Name: SSTD160,160 NG BNA STD

Misc: 30M RTX5,A020401,DILL.0,5971A,2ULINJ

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration

Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
34) 4-Chloro-3-methylphenol	14.15	107	449534	172.19	ul/l	002
35) 2-Methylnaphthalene	14.60	142	984354	171.50	ul/l	002
36) Hexachlorocyclopentadiene	15.13	237	367258	179.73	ul/l	003
37) 2,4,6-Trichlorophenol	15.33	196	299933	179.84	ul/l	003
38) 2,4,5-Trichlorophenol	15.43	196	331728	178.41	ul/l	003
40) 2-Chloronaphthalene	15.84	162	872312	178.76	ul/l	003
41) 2-Nitroaniline	16.16	65	289583	174.92	ul/l	003
42) Dimethylphthalate	16.58	163	915836	170.24	ul/l	003
43) 2,6-Dinitrotoluene	16.82	165	219808	187.35	ul/l	003
44) Acenaphthylene	16.91	152	1331901	171.60	ul/l	003
45) 3-Nitroaniline	17.19	138	262201	167.45	ul/l	003
47) Acenaphthene	17.36	153	751634	171.29	ul/l	003
48) 2,4-Dinitrophenol	17.43	184	136198	2295.77	ul/l	003
49) 4-Nitrophenol	17.48	109	132676	185.20	ul/l	003
50) Dibenzofuran	17.74	168	1095364	171.20	ul/l	003
51) 2,4-Dinitrotoluene	17.80	165	279851	184.14	ul/l	003#
52) Diethylphthalate	18.30	149	941075	163.65	ul/l	003
53) 4-Chlorophenyl-phenylether	18.51	204	435565	170.27	ul/l	003#
54) Fluorene	18.59	166	848049	175.61	ul/l	003
55) 4-Nitroaniline	18.71	138	219629	139.17	ul/l	003
56) 4,6-Dinitro-2-methylphenol	18.77	198	193545	250.67	ul/l	004
57) n-Nitrosodiphenylamine	18.80	169	522114	163.43	ul/l	004
58) 1,2-Diphenlyhydrazine	18.88	77	1047732	164.84	ul/l	004
60) 4-Bromophenyl-phenylether	19.57	248	284022	171.96	ul/l	004#
61) Hexachlorobenzene	19.92	284	344070	174.81	ul/l	004
62) Pentachlorophenol	20.23	266	242729	204.72	ul/l	004
64) Phenanthrene	20.54	178	1188450	177.18	ul/l	004
65) Anthracene	20.62	178	1228883	179.89	ul/l	004
66) Carbazole	20.88	167	835492	126.71	ul/l	004
67) Di-n-butylphthalate	21.36	149	1717897	167.53	ul/l	004
68) Fluoranthene	22.50	202	1326413	175.74	ul/l	004
69) Benzidine	22.63	184	191968	93.08	ul/l	004#
70) Pyrene	22.88	202	1350228	180.24	ul/l	005
72) Butylbenzylphthalate	23.81	149	745266	170.67	ul/l	005
73) bis(2-Ethylhexyl)phthalate	24.97	149	1045764	169.54	ul/l	005#
74) 3,3'-Dichlorobenzidine	25.19	252	509525	166.24	ul/l	005
75) Benzo[a]anthracene	25.35	228	1377296	175.44	ul/l	005
77) Chrysene	25.48	228	1287587	174.53	ul/l	005
78) Di-n-octylphthalate	26.76	149	1846416	163.43	ul/l	006
79) Benzo[b]fluoranthene	29.12	252	1292188	162.81	ul/l	006
80) Benzo[k]fluoranthene	29.22	252	1289108	174.38	ul/l	006
81) Benzo[a]pyrene	30.69	252	1208061	169.03	ul/l	006
83) Indeno[1,2,3-cd]pyrene	36.88	276	1276075	184.02	ul/l	006
84) Dibenz[a,h]anthracene	36.89	278	1096359	184.82	ul/l	006
85) Benzo[g,h,i]perylene	38.36	276	1077377	176.24	ul/l	006

(#) = qualifier out of range

7B

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Roy F. Weston, Inc.Contract: 6720-02-15Case No.: LE CARPENTERRFW Lot: 9301L306Instrument ID: HP5971ACalibration Date: 02/09/93 Time: 0917Lab File ID: A020902Init. Calib. Date(s): 02/04/93 02/04/93

Min RRF50 for SPCC(#) = 0.050

Max %D for CCC(\*) = 25.0%

COMPOUND	RRF	RRF50	%D
bis(2-Chloroethyl)ether	1.160	1.191	-2.7
1,3-Dichlorobenzene	1.217	1.248	-2.5
1,4-Dichlorobenzene	* 1.250	1.263	-1.0 *
1,2-Dichlorobenzene	1.181	1.182	-0.1
bis(2-Chloroisopropyl)ether	2.111	2.069	2.0
N-Nitroso-Di-n-propylamine	# 0.421	0.431	-2.5 #
Hexachloroethane	0.617	0.628	-1.8
Nitrobenzene	0.315	0.326	-3.5
Isophorone	0.611	0.611	0.0
bis(2-Chloroethoxy)methane	0.400	0.409	-2.1
1,2,4-Trichlorobenzene	0.269	0.276	-2.8
Naphthalene	0.922	0.922	0.0
Hexachlorobutadiene	* 0.175	0.178	-1.5 *
Hexachlorocyclopentadiene	# 0.448	0.450	-0.4 #
2-Chloronaphthalene	1.086	1.128	-3.9
Dimethylphthalate	1.153	1.186	-2.9
Acenaphthylene	1.680	1.708	-1.7
2,6-Dinitrotoluene	0.268	0.251	6.3
Acenaphthene	* 0.957	1.008	-5.4 *
2,4-Dinitrotoluene	0.334	0.316	5.4
Diethylphthalate	1.212	1.199	1.1
4-Chlorophenyl-phenylether	0.553	0.556	-0.5
Fluorene	1.067	1.067	0.0
N-Nitrosodiphenylamine (1)	* 0.412	0.412	-0.1 *
4-Bromophenyl-phenylether	0.215	0.220	-2.1
Hexachlorobenzene	0.260	0.279	-7.1
Phenanthrene	0.895	0.864	3.5
Anthracene	0.918	0.868	5.4
Di-n-Butylphthalate	1.298	1.238	4.6
Fluoranthene	* 0.988	0.940	4.9 *
Pyrene	0.990	1.004	-1.5
Butylbenzylphthalate	0.551	0.538	2.4
3,3'-Dichlorobenzidine	0.381	0.374	1.9
Benzo(a)anthracene	1.001	0.983	1.8
Chrysene	0.938	0.921	1.8
bis(2-Ethylhexyl)phthalate	0.760	0.694	8.7
Di-n-Octyl phthalate	* 1.439	1.315	8.6 *

(1) Cannot be separated from Diphenylamine

0000085

7C  
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Roy F. Weston, Inc.Contract: 6720-02-15Case No.: LE CARPENTERRFW Lot: 9301L306Instrument ID: HP5971ACalibration Date: 02/09/93 Time: 0917Lab File ID: A020902Init. Calib. Date(s): 02/04/93 02/04/93

Min RRF50 for SPCC(#) = 0.050

Max %D for CCC(\*) = 25.0%

COMPOUND	RRF	RRF50	%D
Benzo(b)fluoranthene	1.025	1.016	0.9
Benzo(k)fluoranthene	0.986	1.000	-1.4
Benzo(a)pyrene	* 0.943	0.910	3.5 *
Indeno(1,2,3-cd)pyrene	0.971	0.929	4.3
Dibenzo(a,h)anthracene	0.832	0.778	6.5
Benzo(g,h,i)perylene	0.838	0.810	3.3
N-Nitrosodimethylamine	0.641	0.680	-6.0
Benzidine	0.178	0.126	29.1
Nitrobenzene-d5	0.355	0.363	-2.3
2-Fluorobiphenyl	1.322	1.355	-2.5
p-Terphenyl-d14	0.911	0.917	-0.7

FORM VII SV-2

5/88 Rev.

0000086

## QUANT REPORT

Operator ID: KAD Date Acquired: 9 Feb 93 9:17 am

Data File: C:\CHEMPC\DATA\A020902.D

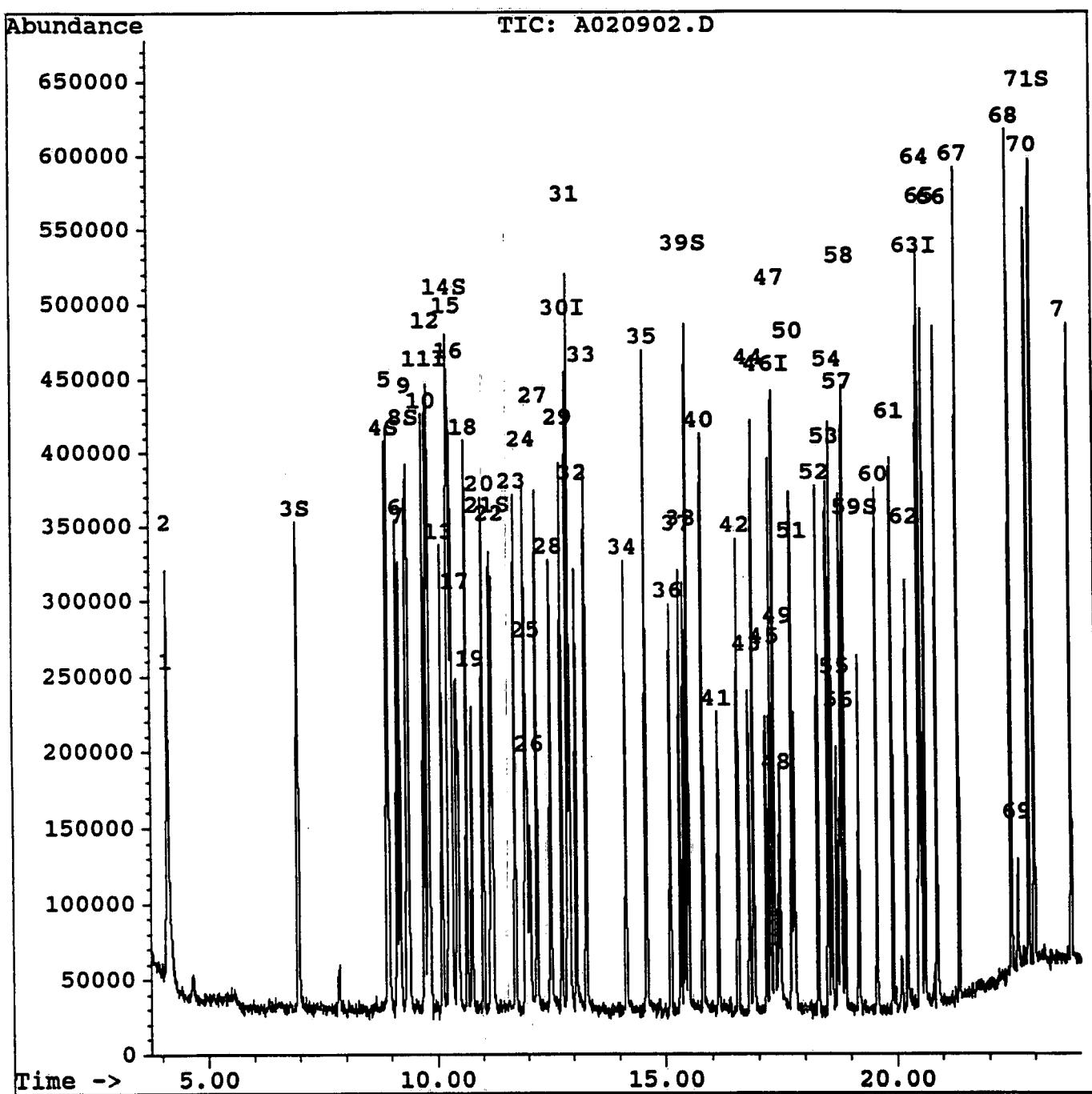
Name: SSTD50,50 NG BNA STD

Misc: 30M RTX5,A020901,DIL 1.0,HP5971A,2UL INJ

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration



0000087

QUANT REPORT

Operator ID: KAD Date Acquired: 9 Feb 93 9:17 am

Data File: C:\CHEMPC\DATA\A020902.D

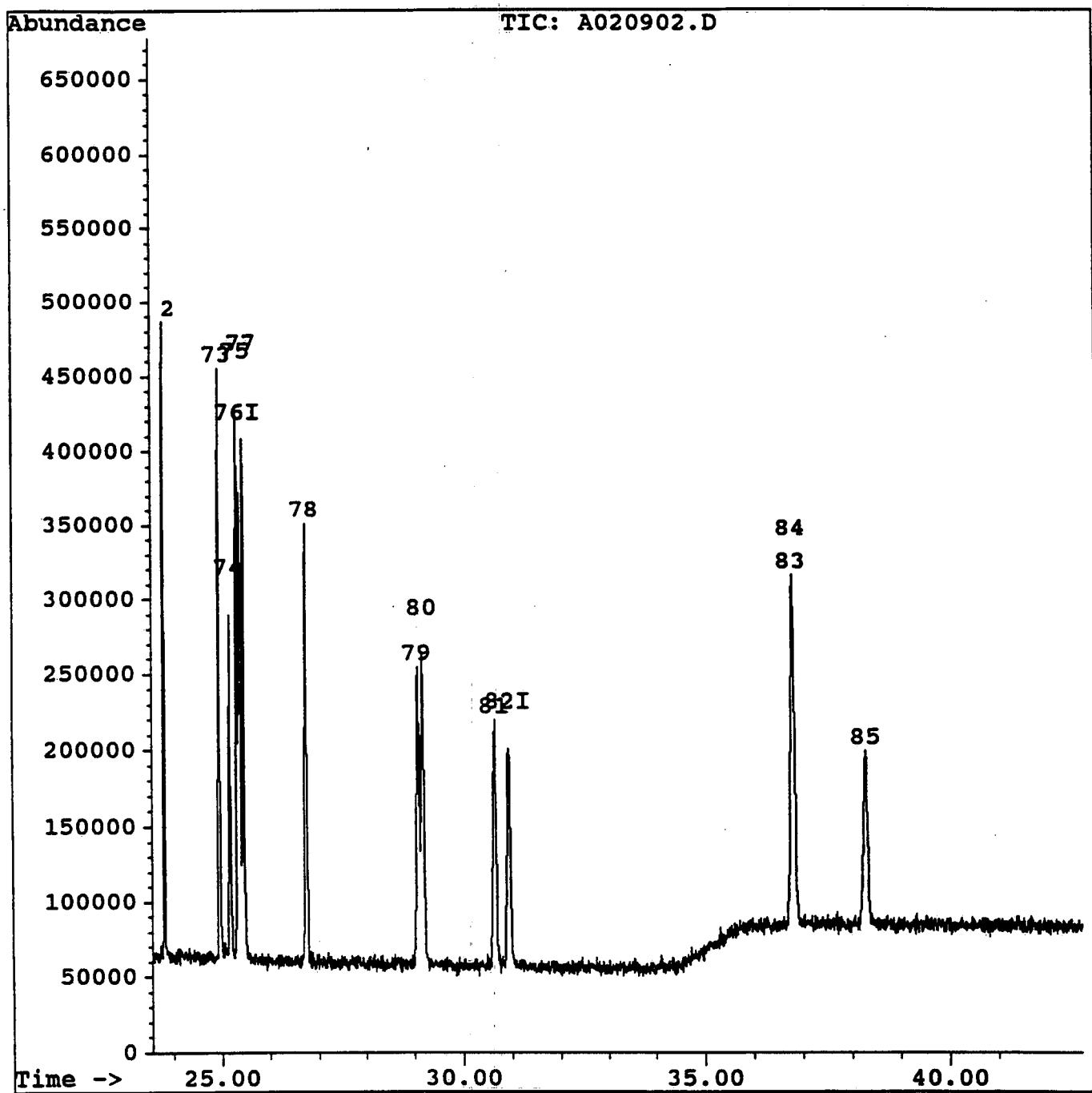
Name: SSTD50,50 NG BNA STD

Misc: 30M RTX5,A020901,DIL 1.0,HP5971A,2UL INJ

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration



## QUANT REPORT

Operator ID: KAD Date Acquired: 9 Feb 93 9:17 am

Data File: C:\CHEMPC\DATA\A020902.D

Name: SSTD50,50 NG BNA STD

Misc: 30M RTX5, A020901, DIL 1.0, HP5971A, 2UL INJ

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration

## Internal Standards

	Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
11)	1,4-Dichlorobenzene-d4	9.81	152	129933	40.00	ul/l	-0.02
30)	Naphthalene-d8	12.87	136	393498	40.00	ul/l	-0.02
46)	Acenaphthene-d10	17.28	164	157998	40.00	ul/l	-0.02
63)	Phenanthrene-d10	20.49	188	260300	40.00	ul/l	-0.02
76)	Chrysene-d12	25.39	240	249194	40.00	ul/l	-0.02
82)	Perylene-d12	30.95	264	222543	40.00	ul/l	-0.05

## Surrogate Compounds

					%Recovery
3)	2-Fluorophenol	6.96	112	230326	50.74 ul/l 50.74%
4)	Phenol-d5	8.92	99	240875	53.90 ul/l 53.90%
8)	2-Chlorophenol-d4	9.35	132	202304	50.31 ul/l 50.31%
14)	1,2-Dichlorobenzene-d4	10.26	152	134842	51.06 ul/l 102.11%
21)	Nitrobenzene-d5	11.18	82	178664	51.13 ul/l 102.26%
39)	2-Fluorobiphenyl	15.51	172	267630	50.66 ul/l 101.32%
59)	2,4,6-Tribromophenol	19.17	330	47405	51.62 ul/l 51.62%
71)	p-Terphenyl-d14	23.00	244	285768	46.89 ul/l 93.78%

## Target Compounds

					ISTD#
1)	N-nitrosodimethylamine	4.09	74	110508	53.45 ul/l 001
2)	Pyridine	4.12	79	228014	52.38 ul/l 001#
5)	Phenol	8.95	94	220577	53.88 ul/l 001
6)	Aniline	9.14	93	230706	52.15 ul/l 001
7)	bis(2-Chloroethyl)ether	9.20	93	193401	49.77 ul/l 001
9)	2-Chlorophenol	9.39	128	195011	50.94 ul/l 001
10)	1,3-Dichlorobenzene	9.73	146	202616	51.75 ul/l 001
12)	1,4-Dichlorobenzene	9.84	146	205193	50.45 ul/l 001
13)	Benzyl alcohol	10.11	108	104483	50.54 ul/l 001
15)	1,2-Dichlorobenzene	10.29	146	191907	50.44 ul/l 001M
16)	2-Methylphenol	10.34	108	157054	50.92 ul/l 001
17)	bis(2-Chloroisopropyl)ethane	10.43	45	336077	50.76 ul/l 001#
18)	4-Methylphenol	10.65	108	161865	51.47 ul/l 001
19)	n-Nitroso-di-n-propylamine	10.77	70	70016	55.70 ul/l 001
20)	Hexachloroethane	11.01	117	101927	49.74 ul/l 001
22)	Nitrobenzene	11.22	77	160397	51.13 ul/l 002
23)	Isophorone	11.72	82	300325	50.43 ul/l 002
24)	2,4-Dimethylphenol	11.93	107	145384	50.32 ul/l 002
25)	2-Nitrophenol	11.98	139	76669	51.11 ul/l 002
26)	Benzoic Acid	12.05	122	64665	51.73 ul/l 002
27)	bis(2-Chloroethoxy)methane	12.19	93	201298	48.29 ul/l 002
28)	2,4-Dichlorophenol	12.50	162	110992	48.95 ul/l 002
29)	1,2,4-Trichlorobenzene	12.74	180	135724	49.59 ul/l 002
31)	Naphthalene	12.92	128	453633	50.39 ul/l 002
32)	4-Chloroaniline	13.07	127	174705	49.11 ul/l 002
33)	Hexachlorobutadiene	13.28	225	87351	48.39 ul/l 002

(#) = qualifier out of range

## QUANT REPORT

Operator ID: KAD Date Acquired: 9 Feb 93 9:17 am

Data File: C:\CHEMPC\DATA\A020902.D

Name: SSTD50,50 NG BNA STD

Misc: 30M RTX5,A020901,DIL 1.0,HP5971A,2UL INJ

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration

Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
34) 4-Chloro-3-methylphenol	14.14	107	118168	51.15	ul/l	002
35) 2-Methylnaphthalene	14.60	142	249915	48.36	ul/l	002
36) Hexachlorocyclopentadiene	15.12	237	88879	49.03	ul/l	003
37) 2,4,6-Trichlorophenol	15.33	196	73535	50.54	ul/l	003
38) 2,4,5-Trichlorophenol	15.43	196	86907	54.91	ul/l	003
40) 2-Chloronaphthalene	15.82	162	222792	52.16	ul/l	003
41) 2-Nitroaniline	16.15	65	66963	53.56	ul/l	003
42) Dimethylphthalate	16.57	163	234312	50.51	ul/l	003#
43) 2,6-Dinitrotoluene	16.81	165	49547	53.40	ul/l	003
44) Acenaphthylene	16.90	152	337397	51.53	ul/l	003
45) 3-Nitroaniline	17.18	138	66002	56.37	ul/l	003
47) Acenaphthene	17.36	153	199068	52.85	ul/l	003
48) 2,4-Dinitrophenol	17.42	184	19397	61.42	ul/l	003#
49) 4-Nitrophenol	17.47	109	28639	53.14	ul/l	003#
50) Dibenzofuran	17.73	168	276938	50.91	ul/l	003
51) 2,4-Dinitrotoluene	17.79	165	62435	52.77	ul/l	003#
52) Diethylphthalate	18.29	149	236833	49.76	ul/l	003#
53) 4-Chlorophenyl-phenylether	18.51	204	109711	50.54	ul/l	003#
54) Fluorene	18.58	166	210795	51.88	ul/l	003
55) 4-Nitroaniline	18.69	138	64428	57.06	ul/l	003
56) 4,6-Dinitro-2-methylphenol	18.76	198	31738	55.74	ul/l	004
57) n-Nitrosodiphenylamine	18.79	169	134071	48.84	ul/l	004
58) 1,2-Diphenlyhydrazine	18.87	77	276903	50.21	ul/l	004
60) 4-Bromophenyl-phenylether	19.57	248	71679	49.71	ul/l	004#
61) Hexachlorobenzene	19.91	284	90681	50.21	ul/l	004
62) Pentachlorophenol	20.23	266	53684	53.00	ul/l	004
64) Phenanthrene	20.53	178	281270	49.65	ul/l	004
65) Anthracene	20.62	178	282382	48.70	ul/l	004
66) Carbazole	20.88	167	273953	51.55	ul/l	004
67) Di-n-butylphthalate	21.36	149	402897	48.35	ul/l	004
68) Fluoranthene	22.49	202	305915	52.32	ul/l	004
69) Benzidine	22.63	184	41000	51.53	ul/l	004#
70) Pyrene	22.87	202	312833	46.40	ul/l	005
72) Butylbenzylphthalate	23.81	149	167658	47.54	ul/l	005
73) bis(2-Ethylhexyl)phthalate	24.96	149	216033	45.18	ul/l	005#
74) 3,3'-Dichlorobenzidine	25.17	252	116417	49.43	ul/l	005
75) Benzo[a]anthracene	25.33	228	306098	49.74	ul/l	005
77) Chrysene	25.46	228	286911	50.17	ul/l	005
78) Di-n-octylphthalate	26.74	149	365909	46.01	ul/l	006
79) Benzo[b]fluoranthene	29.08	252	282593	49.09	ul/l	006
80) Benzo[k]fluoranthene	29.18	252	278296	49.31	ul/l	006
81) Benzo[a]pyrene	30.65	252	253010	49.43	ul/l	006
83) Indeno[1,2,3-cd]pyrene	36.80	276	258444	50.51	ul/l	006
84) Dibenz[a,h]anthracene	36.81	278	216556	49.44	ul/l	006
85) Benzo[g,h,i]perylene	38.29	276	225303	49.73	ul/l	006

(#) = qualifier out of range

0000090

7B  
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Roy F. Weston, Inc.Contract: 6720-02-15Case No.: LE CARPENTERRFW Lot: 9301L306Instrument ID: HP5971ACalibration Date: 02/12/93 Time: 0901Lab File ID: A021202Init. Calib. Date(s): 02/04/93 02/04/93

Min RRF50 for SPCC(#) = 0.050

Max %D for CCC(\*) = 25.0%

COMPOUND	RRF	RRF50	%D
bis(2-Chloroethyl)ether	1.160	1.209	-4.2
1,3-Dichlorobenzene	1.217	1.199	1.5
1,4-Dichlorobenzene	* 1.250	1.251	-0.1 *
1,2-Dichlorobenzene	1.181	1.152	2.5
bis(2-Chloroisopropyl)ether	2.111	2.014	4.6
N-Nitroso-Di-n-propylamine	# 0.421	0.393	6.6 #
Hexachloroethane	0.617	0.617	0.0
Nitrobenzene	0.315	0.332	-5.4
Isophorone	0.611	0.617	-0.9
bis(2-Chloroethoxy)methane	0.400	0.420	-4.9
1,2,4-Trichlorobenzene	0.269	0.284	-5.7
Naphthalene	0.922	0.922	0.0
Hexachlorobutadiene	* 0.175	0.180	-2.6 *
Hexachlorocyclopentadiene	# 0.448	0.370	17.5 #
2-Chloronaphthalene	1.086	1.044	3.9
Dimethylphthalate	1.153	1.124	2.5
Acenaphthylene	1.680	1.616	3.8
2,6-Dinitrotoluene	0.268	0.229	14.6
Acenaphthene	* 0.957	0.938	1.9 *
2,4-Dinitrotoluene	0.334	0.301	9.9
Diethylphthalate	1.212	1.128	6.9
4-Chlorophenyl-phenylether	0.553	0.548	0.9
Fluorene	1.067	1.007	5.6
N-Nitrosodiphenylamine (1)	* 0.412	0.409	0.7 *
4-Bromophenyl-phenylether	0.215	0.216	-0.3
Hexachlorobenzene	0.260	0.279	-7:1
Phenanthrene	0.895	0.876	2.1
Anthracene	0.918	0.873	4.9
Di-n-Butylphthalate	1.298	1.218	6.2
Fluoranthene	* 0.988	0.958	3.1 *
Pyrene	0.990	0.986	0.4
Butylbenzylphthalate	0.551	0.511	7.3
3,3'-Dichlorobenzidine	0.381	0.329	13.7
Benzo(a)anthracene	1.001	0.991	1.0
Chrysene	0.938	0.919	2.0
bis(2-Ethylhexyl)phthalate	0.760	0.668	12.1
Di-n-Octyl phthalate	* 1.439	1.308	9.1 *

(1) Cannot be separated from Diphenylamine

0000091

7D  
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Roy F. Weston, Inc.Contract: 6720-02-15Case No.: LE CARPENTERRFW Lot: 9301L306Instrument ID: HP5971ACalibration Date: 02/12/93 Time: 0901Lab File ID: A021202Init. Calib. Date(s): 02/04/93 02/04/93

Min RRF50 for SPCC(#) = 0.050

Max %D for CCC(\*) = 25.0%

COMPOUND	RRF	RRF50	%D
Benzo(b)fluoranthene	1.025	1.068	-4.2
Benzo(k)fluoranthene	0.986	1.025	-4.0
Benzo(a)pyrene	* 0.943	0.954	-1.1 *
Indeno(1,2,3-cd)pyrene	0.971	0.956	1.5
Dibenzo(a,h)anthracene	0.832	0.808	2.9
Benzo(g,h,i)perylene	0.838	0.815	2.7
N-Nitrosodimethylamine	0.641	0.662	-3.2
Benzidine	0.178	0.065	63.4
<hr/>			
Nitrobenzene-d5	0.355	0.380	-7.1
2-Fluorobiphenyl	1.322	1.308	1.1
p-Terphenyl-d14	0.911	0.908	0.3

FORM VII SV-2

5/88 Rev.

0000092

## QUANT REPORT

Operator ID: KAD Date Acquired: 12 Feb 93 9:01 am

Data File: C:\CHEMPC\DATA\A021202.D

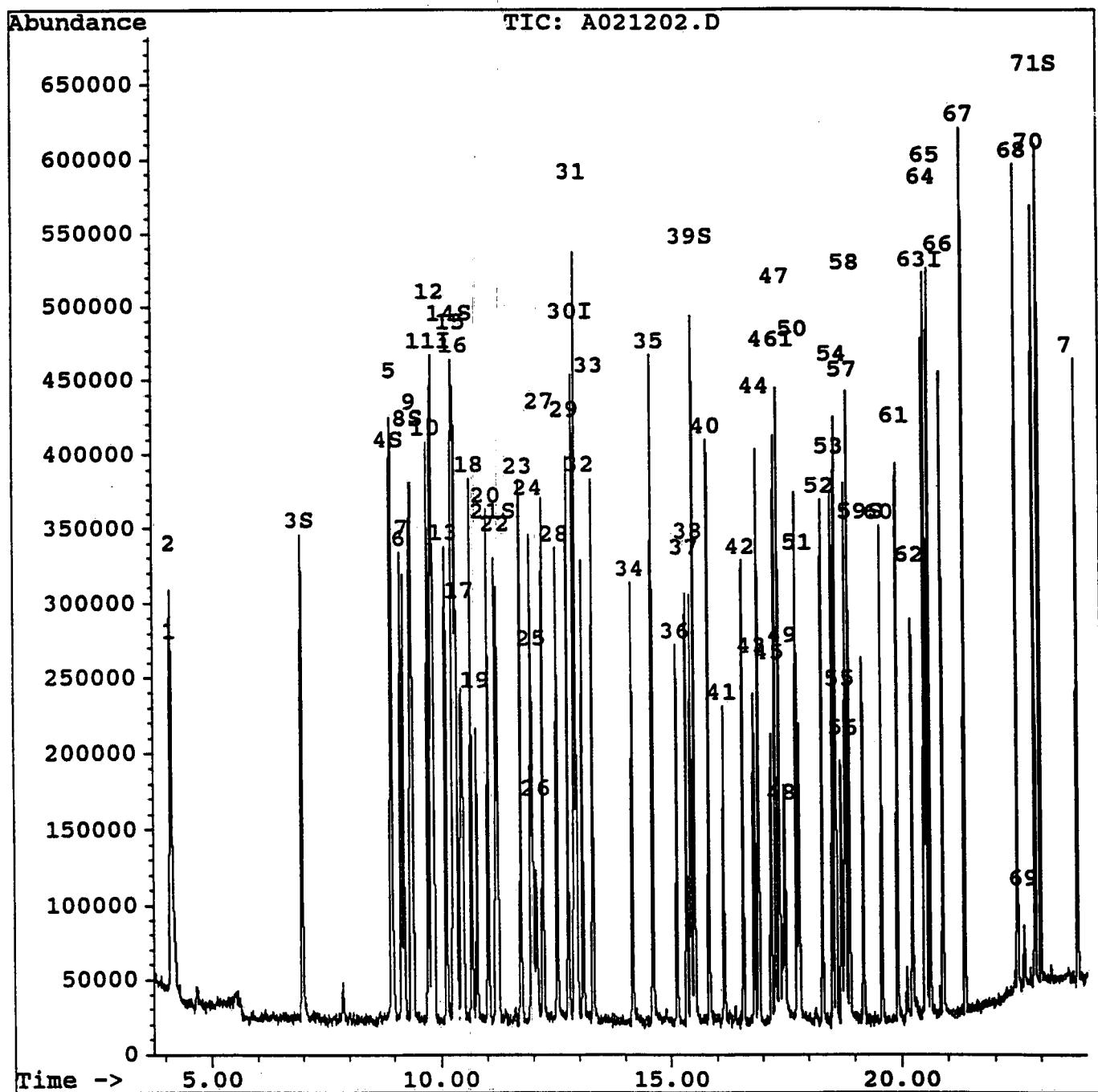
Name: SSTD50,50 NG BNA STD

Misc: 30M RTX5,A021201,DIL 1.0,HP5971A,2UL INJ

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration



0000093

## QUANT REPORT

Operator ID: KAD Date Acquired: 12 Feb 93 9:01 am

Data File: C:\CHEMPC\DATA\A021202.D

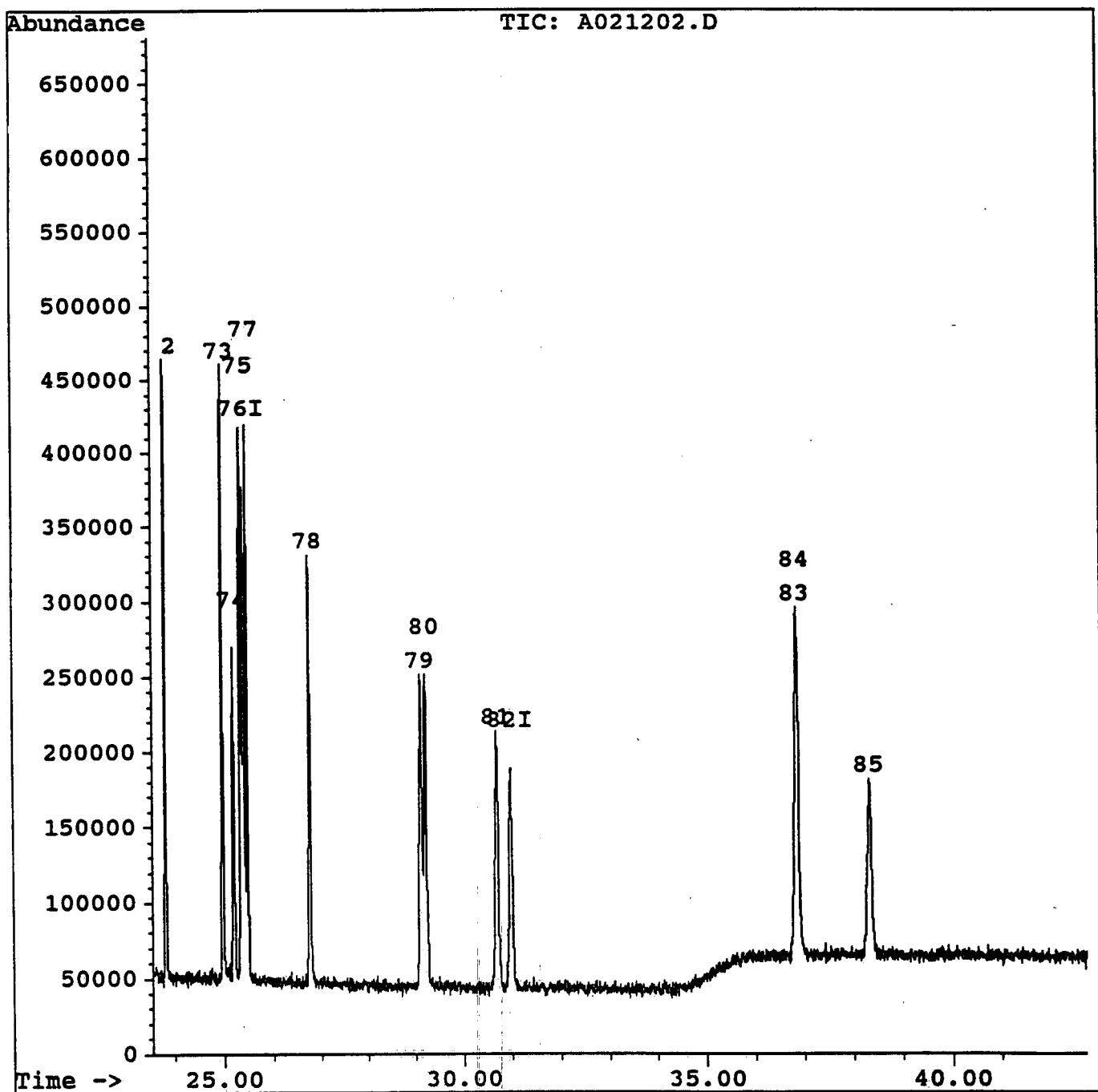
Name: SSTD50,50 NG BNA STD

Misc: 30M RTX5,A021201,DIL 1.0,HP5971A,2UL INJ

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration



## QUANT REPORT

Operator ID: KAD Date Acquired: 12 Feb 93 9:01 am

Data File: C:\CHEMPC\DATA\A021202.D

Name: SSTD50,50 NG BNA STD

Misc: 30M RTX5,A021201,DIL 1.0,HP5971A,2UL INJ

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration

## Internal Standards

	Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
11)	1,4-Dichlorobenzene-d4	9.82	152	133465	40.00	ul/l	0.02
30)	Naphthalene-d8	12.89	136	394465	40.00	ul/l	0.01
46)	Acenaphthene-d10	17.29	164	167882	40.00	ul/l	0.01
63)	Phenanthrene-d10	20.50	188	261713	40.00	ul/l	0.01
76)	Chrysene-d12	25.41	240	262895	40.00	ul/l	0.02
82)	Perylene-d12	30.98	264	218928	40.00	ul/l	0.03

## Surrogate Compounds

					%Recovery
3)	2-Fluorophenol	6.97	112	233157	49.18 ul/l 49.18%
4)	Phenol-d5	8.94	99	240516	49.15 ul/l 49.15%
8)	2-Chlorophenol-d4	9.37	132	204812	48.97 ul/l 48.97%
14)	1,2-Dichlorobenzene-d4	10.28	152	137053	50.56 ul/l 101.13%
21)	Nitrobenzene-d5	11.19	82	187146	49.49 ul/l 98.98%
39)	2-Fluorobiphenyl	15.53	172	274508	48.49 ul/l 96.98%
59)	2,4,6-Tribromophenol	19.18	330	46327	51.58 ul/l 51.58%
71)	p-Terphenyl-d14	23.01	244	298476	49.84 ul/l 99.68%

## Target Compounds

					ISTD#
1)	N-nitrosodimethylamine	4.11	74	110370	47.98 ul/l 001
2)	Pyridine	4.13	79	229567	47.50 ul/l 001
5)	Phenol	8.97	94	223782	49.02 ul/l 001
6)	Aniline	9.16	93	227892	48.18 ul/l 001
7)	bis(2-Chloroethyl)ether	9.22	93	201640	49.21 ul/l 001
9)	2-Chlorophenol	9.41	128	193429	48.13 ul/l 001
10)	1,3-Dichlorobenzene	9.75	146	200066	49.44 ul/l 001
12)	1,4-Dichlorobenzene	9.86	146	208778	50.56 ul/l 001
13)	Benzyl alcohol	10.12	108	110863	51.44 ul/l 001
15)	1,2-Dichlorobenzene	10.31	146	192138	48.99 ul/l 001m
16)	2-Methylphenol	10.35	108	161008	49.41 ul/l 001
17)	bis(2-Chloroisopropyl)ethane	10.45	45	336026	49.33 ul/l 001#
18)	4-Methylphenol	10.67	108	164045	49.74 ul/l 001
19)	n-Nitroso-di-n-propylamine	10.78	70	65498	48.19 ul/l 001
20)	Hexachloroethane	11.03	117	102960	49.97 ul/l 001
22)	Nitrobenzene	11.24	77	163707	50.44 ul/l 002
23)	Isophorone	11.73	82	303999	50.91 ul/l 002
24)	2,4-Dimethylphenol	11.95	107	135198	46.55 ul/l 002
25)	2-Nitrophenol	12.00	139	73942	49.18 ul/l 002#
26)	Benzoic Acid	12.08	122	51025	43.75 ul/l 002
27)	bis(2-Chloroethoxy)methane	12.21	93	206941	49.69 ul/l 002
28)	2,4-Dichlorophenol	12.52	162	111082	49.69 ul/l 002
29)	1,2,4-Trichlorobenzene	12.76	180	140126	51.25 ul/l 002
31)	Naphthalene	12.94	128	454490	50.31 ul/l 002
32)	4-Chloroaniline	13.08	127	173077	47.96 ul/l 002
33)	Hexachlorobutadiene	13.30	225	88523	50.19 ul/l 002

(#) = qualifier out of range

000009

## QUANT REPORT

Operator ID: KAD Date Acquired: 12 Feb 93 9:01 am

Data File: C:\CHEMPC\DATA\A021202.D

Name: SSTD50,50 NG BNA STD

Misc: 30M RTX5,A021201,DIL 1.0,HP5971A,2UL INJ

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration

Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
34) 4-Chloro-3-methylphenol	14.16	107	117249	50.67	ul/l	002
35) 2-Methylnaphthalene	14.61	142	250312	50.47	ul/l	002
36) Hexachlorocyclopentadiene	15.14	237	77634	40.59	ul/l	003
37) 2,4,6-Trichlorophenol	15.35	196	75622	48.10	ul/l	003
38) 2,4,5-Trichlorophenol	15.44	196	85771	49.00	ul/l	003
40) 2-Chloronaphthalene	15.84	162	219119	47.70	ul/l	003
41) 2-Nitroaniline	16.17	65	65692	47.94	ul/l	003
42) Dimethylphthalate	16.59	163	235814	48.95	ul/l	003#
43) 2,6-Dinitrotoluene	16.83	165	48119	48.08	ul/l	003#
44) Acenaphthylene	16.92	152	339144	49.01	ul/l	003
45) 3-Nitroaniline	17.20	138	62343	46.81	ul/l	003
47) Acenaphthene	17.37	153	196790	49.11	ul/l	003
48) 2,4-Dinitrophenol	17.44	184	17019	44.22	ul/l	003#
49) 4-Nitrophenol	17.49	109	27787	44.87	ul/l	003#
50) Dibenzofuran	17.75	168	280493	49.32	ul/l	003
51) 2,4-Dinitrotoluene	17.81	165	63162	48.99	ul/l	003#
52) Diethylphthalate	18.30	149	236626	49.18	ul/l	003#
53) 4-Chlorophenyl-phenylether	18.52	204	114930	49.94	ul/l	003#
54) Fluorene	18.60	166	211255	49.70	ul/l	003
55) 4-Nitroaniline	18.71	138	62035	50.34	ul/l	003
56) 4,6-Dinitro-2-methylphenol	18.78	198	29599	49.21	ul/l	004
57) n-Nitrosodiphenylamine	18.81	169	133885	50.07	ul/l	004
58) 1,2-Diphenlyhydrazine	18.88	77	280712	50.60	ul/l	004
60) 4-Bromophenyl-phenylether	19.58	248	70535	48.93	ul/l	004#
61) Hexachlorobenzene	19.92	284	91402	51.97	ul/l	004#
62) Pentachlorophenol	20.24	266	53245	49.67	ul/l	004
64) Phenanthrene	20.54	178	286736	51.02	ul/l	004
65) Anthracene	20.63	178	285534	50.05	ul/l	004
66) Carbazole	20.89	167	261448	47.80	ul/l	004
67) Di-n-butylphthalate	21.36	149	398381	51.17	ul/l	004
68) Fluoranthene	22.50	202	313267	51.17	ul/l	004
69) Benzidine	22.64	184	21264	21.25	ul/l	004#
70) Pyrene	22.88	202	324027	50.33	ul/l	005
72) Butylbenzylphthalate	23.81	149	168081	50.62	ul/l	005#
73) bis(2-Ethylhexyl)phthalate	24.97	149	219481	50.62	ul/l	005#
74) 3,3'-Dichlorobenzidine	25.19	252	108031	48.66	ul/l	005
75) Benzo[a]anthracene	25.35	228	325754	50.78	ul/l	005
77) Chrysene	25.47	228	301993	50.40	ul/l	005
78) Di-n-octylphthalate	26.76	149	357866	50.65	ul/l	006
79) Benzo[b]fluoranthene	29.11	252	292134	53.56	ul/l	006
80) Benzo[k]fluoranthene	29.21	252	280584	50.80	ul/l	006
81) Benzo[a]pyrene	30.68	252	261061	52.05	ul/l	006
83) Indeno[1,2,3-cd]pyrene	36.85	276	261606	54.10	ul/l	006
84) Dibenz[a,h]anthracene	36.85	278	221244	51.63	ul/l	006#
85) Benzo[g,h,i]perylene	38.32	276	223071	50.18	ul/l	006

(#) = qualifier out of range

000009A

8B  
SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: Roy F. Weston, Inc.Contract: 6720-02-15Case No.: LE CARPENTERRFW Lot: 9301L306Lab File ID (Standard): A020902Date Analyzed: 02/09/93Instrument ID: HP5971ATime Analyzed: 0917

	IS1(DCB) AREA #	RT	IS2(NPT) AREA #	RT	IS3(ANT) AREA #	RT
12 HOUR STD	129933	9.81	393498	12.87	157998	17.28
UPPER LIMIT	259866	10.31	786996	13.37	315996	17.78
LOWER LIMIT	64967	9.31	196749	12.37	78999	16.78
CLIENT SAMPLE NO.						
01 FB-1	113592	9.79	355800	12.86	142597	17.26
02 MW-110	106088	9.79	324906	12.86	136583	17.26
03 MW-110MS	110984	9.79	338527	12.86	141106	17.26
04 MW-110MSD	113869	9.79	342873	12.86	139591	17.26
05 SBLKLE0084-MB1	132701	9.79	419348	12.86	166213	17.26
06 SBLKLE0084-MB1 BS	124876	9.79	400449	12.85	165432	17.26

IS1 (DCB) = 1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%

IS2 (NPT) = Naphthalene-d8

of internal standard area.

IS3 (ANT) = Acenaphthene-d10

LOWER LIMIT = - 50%

of internal standard area.

# Column used to flag internal standard area values with an asterisk

0000097

8C

## SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: Roy F. Weston, Inc.Contract: 6720-02-15Case No.: LE CARPENTERRFW Lot: 9301L306Lab File ID (Standard): A020902Date Analyzed: 02/09/93Instrument ID: HP5971ATime Analyzed: 0917

	IS4(PHN)		IS5(CRY)		IS6(PRY)	
	AREA #	RT	AREA #	RT	AREA #	RT
12 HOUR STD	260300	20.49	249194	25.39	222543	30.95
UPPER LIMIT	520600	20.99	498388	25.89	445086	31.45
LOWER LIMIT	130150	19.99	124597	24.89	111272	30.45
CLIENT SAMPLE NO.						
01 FB-1	237632	20.48	223078	25.37	202540	30.92
02 MW-110	240450	20.48	251131	25.38	226986	30.92
03 MW-110MS	245438	20.49	240276	25.38	217014	30.93
04 MW-110MSD	233959	20.49	231891	25.38	211310	30.92
05 SBLKLE0084-MB1	277642	20.48	259524	25.37	243031	30.91
06 SBLKLE0084-MB1 BS	291591	20.48	278797	25.38	252174	30.93

IS4 (PHN) = Phenanthrene-d10

UPPER LIMIT = + 100%

IS5 (CRY) = Chrysene-d12

of internal standard area.

IS6 (PRY) = Perylene-d12

LOWER LIMIT = - 50%

of internal standard area.

# Column used to flag internal standard area values with an asterisk

0000098

8B

## SEMOVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: Roy F. Weston, Inc.Contract: 6720-02-15Case No.: LE CARPENTERRFW Lot: 9301L306Lab File ID (Standard): A021202Date Analyzed: 02/12/93Instrument ID: HP5971ATime Analyzed: 0901

	IS1(DCB) AREA #	RT	IS2(NPT) AREA #	RT	IS3(ANT) AREA #	RT
12 HOUR STD	133465	9.82	394465	12.89	167882	17.29
UPPER LIMIT	266930	10.32	788930	13.39	335764	17.79
LOWER LIMIT	66733	9.32	197233	12.39	83941	16.79
CLIENT SAMPLE NO.						
01 MW-110DL	122644	9.82	388898	12.88	159908	17.29

IS1 (DCB) = 1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%

IS2 (NPT) = Naphthalene-d8

of internal standard area.

IS3 (ANT) = Acenaphthene-d10

LOWER LIMIT = - 50%

of internal standard area.

# Column used to flag internal standard area values with an asterisk

0000099

8C

## SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: Roy F. Weston, Inc.Contract: 6720-02-15Case No.: LE CARPENTERRFW Lot: 9301L306Lab File ID (Standard): A021202Date Analyzed: 02/12/93Instrument ID: HP5971ATime Analyzed: 0901

	IS4(PHN) AREA #	RT	IS5(CRY) AREA #	RT	IS6(PRY) AREA #	RT
12 HOUR STD	261713	20.50	262895	25.41	218928	30.98
UPPER LIMIT	523426	21.00	525790	25.91	437856	31.48
LOWER LIMIT	130857	20.00	131448	24.91	109464	30.48
CLIENT SAMPLE NO.						
01 MW-110DL	237751	20.50	234410	25.40	205856	30.97

IS4 (PHN) = Phenanthrene-d10

UPPER LIMIT = + 100%

IS5 (CRY) = Chrysene-d12

of internal standard area.

IS6 (PRY) = Perylene-d12

LOWER LIMIT = - 50%

of internal standard area.

# Column used to flag internal standard area values with an asterisk

**V. Raw QC Data Package****A. GC/MS Tuning and Calibration Standard: DFTPP**

1. Bar Graph
2. Mass Listing

**B. Blank Data**

1. Tabulated Results (Form 1)
2. TIC Results (Form 1B)
3. Raw Data
  - a. Reconstructed Ion Chromatogram(s) and Quantitation Report(s)
  - b. HSL Spectra
  - c. TIC Spectra
  - d. GC/MS Library Search for TIC

**C. Matrix Spike Data (if applicable)**

1. Tabulated Results (Form 1)
2. Raw Data
  - a. Reconstructed Ion Chromatogram(s)
  - b. Quantitation Report(s)

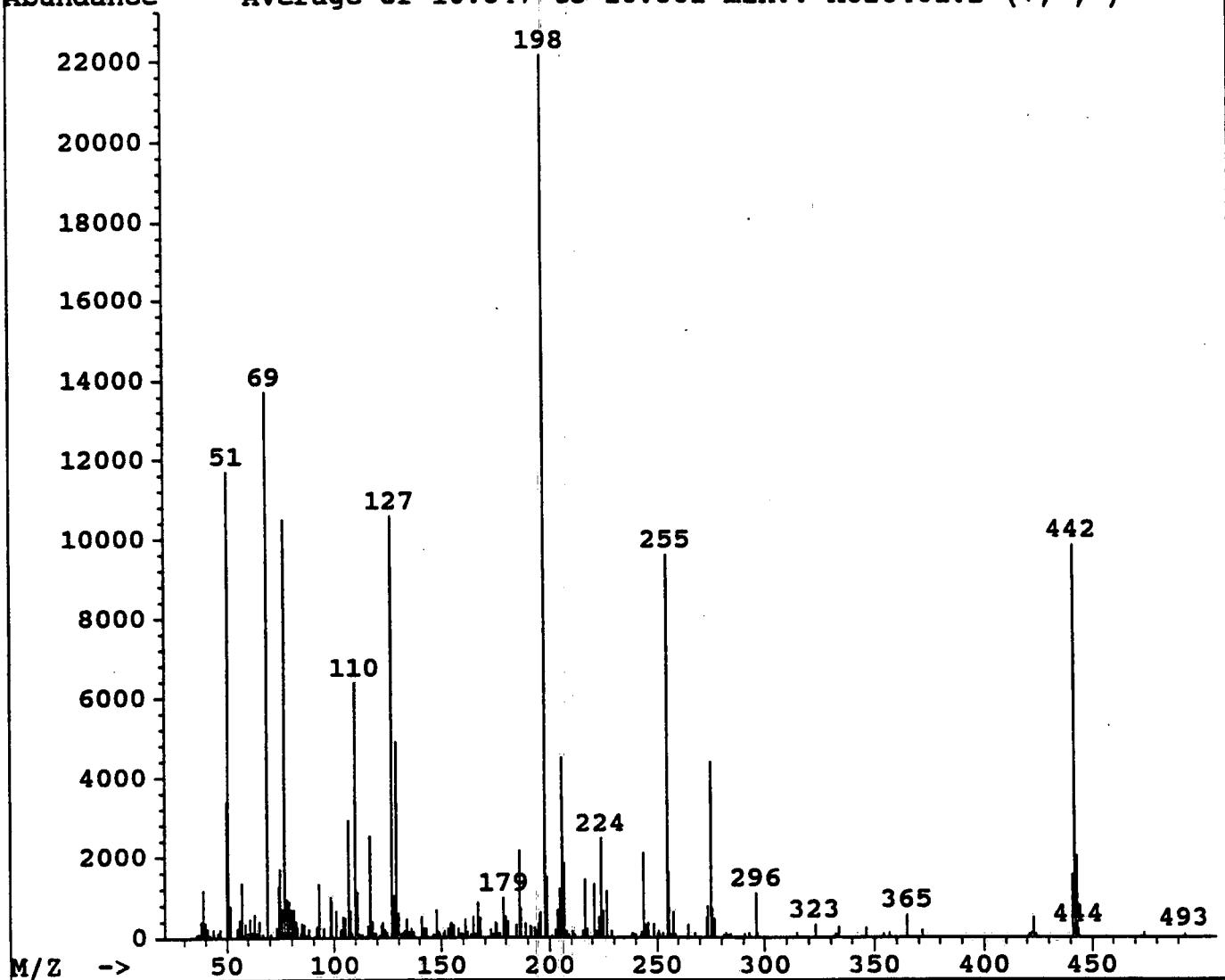
0000101

## DFTPP 625 Results

C:\CHEMPC\DATA\A020401.D

4 Feb 93 8:59 am

Abundance Average of 10.847 to 10.861 min.: A020401.D (+,-,\*)

OK  
KPD  
Data

Peak Apex is scan: 942

Average of 3 scans: 941, 942, 943 minus background scan 938

Target Mass	Comparison Mass	Lower Limit, %	Upper Limit, %	Relative Abundance, %	Result Pass/Fail
51	198	30	60	52.9	PASS
68	69	0	2	0.0	PASS
69	198	0	100	62.0	PASS
70	69	0	2	0.0	PASS
127	198	40	60	47.9	PASS
197	198	0	1	0.0	PASS
198	198	100	100	100.0	PASS
199	198	5	9	6.7	PASS
275	198	10	30	19.8	PASS
365	198	1	100	2.5	PASS
441	443	0	100	77.7	PASS
442	198	40	100	44.6	PASS
443	442	17	23	20.2	PASS

0000102

Average of 10.847 to 10.861 min.: A020401.D

DFTPP50,50 NG TUNE

Modified:added subtracted scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	73	51.00	11703	63.00	564	78.00	951
37.05	91	51.95	755	64.00	119	79.00	875
37.90	401	54.95	235	64.95	392	79.90	693
39.00	1160	55.95	438	66.95	75	80.95	684
39.95	359	57.00	1338	68.90	13702	82.00	393
41.00	236	57.85	43	70.60	95	82.80	244
42.00	70	59.00	347	73.00	259	84.10	116
43.95	204	59.85	113	73.95	1265	85.00	350
46.15	96	60.15	90	75.05	1690	85.95	314
46.80	185	60.90	442	75.95	706	86.95	70
50.00	3365	62.10	141	77.00	10488	87.90	189

Average of 10.847 to 10.861 min.: A020401.D

DFTPP50,50 NG TUNE

Modified:added subtracted scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
91.00	33	107.95	648	118.95	113	129.95	587
91.95	254	108.50	125	119.55	87	130.90	94
93.00	1316	109.95	6368	119.85	115	131.90	111
95.20	211	110.95	1113	121.00	71	133.00	157
98.00	984	111.65	87	121.90	325	133.95	455
98.95	873	111.95	95	123.00	374	135.00	140
100.95	649	112.95	82	123.85	197	135.90	225
102.90	189	114.90	24	124.95	136	136.90	141
103.90	514	116.00	291	126.95	10581	140.90	506
105.00	483	117.00	2523	128.00	1024	141.95	226
107.00	2913	117.85	394	128.90	4890	142.90	210

Average of 10.847 to 10.861 min.: A020401.D

DFTPP50,50 NG TUNE

Modified:added subtracted scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
146.00	91	155.95	297	166.95	863	184.85	317
146.90	67	157.85	219	167.90	474	185.95	2154
147.85	686	158.90	80	172.75	187	186.90	723
148.90	134	159.80	126	174.00	88	188.95	340
149.55	74	160.10	93	174.95	376	190.95	282
150.85	107	160.95	456	175.85	328	191.85	240
151.50	78	162.00	130	176.20	113	192.90	265
151.75	181	162.80	1	176.95	121	193.85	195
152.90	212	163.95	82	178.90	960	195.00	344
153.95	332	164.90	512	179.90	516	195.90	626
154.90	375	165.90	93	180.90	388	197.90	22104

Average of 10.847 to 10.861 min.: A020401.D

DFTPP50,50 NG TUNE

Modified:added subtracted scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
198.90	1488	215.75	183	238.65	96	252.90	101
201.15	70	216.85	1436	238.95	88	254.95	9598
202.90	186	217.80	223	239.95	93	255.85	1597
203.90	675	220.90	1323	242.90	130	256.80	92
204.90	1189	221.80	182	243.95	2093	257.85	634
206.00	4485	222.90	516	244.90	302	259.00	78
206.95	1820	223.90	2450	245.90	364	264.85	327
207.90	168	224.90	654	248.85	338	267.95	102
208.95	78	226.85	1129	250.10	82	268.80	6
210.60	159	228.70	110	250.60	183	272.95	490
211.60	90	229.00	169	251.30	83	273.85	763

000102

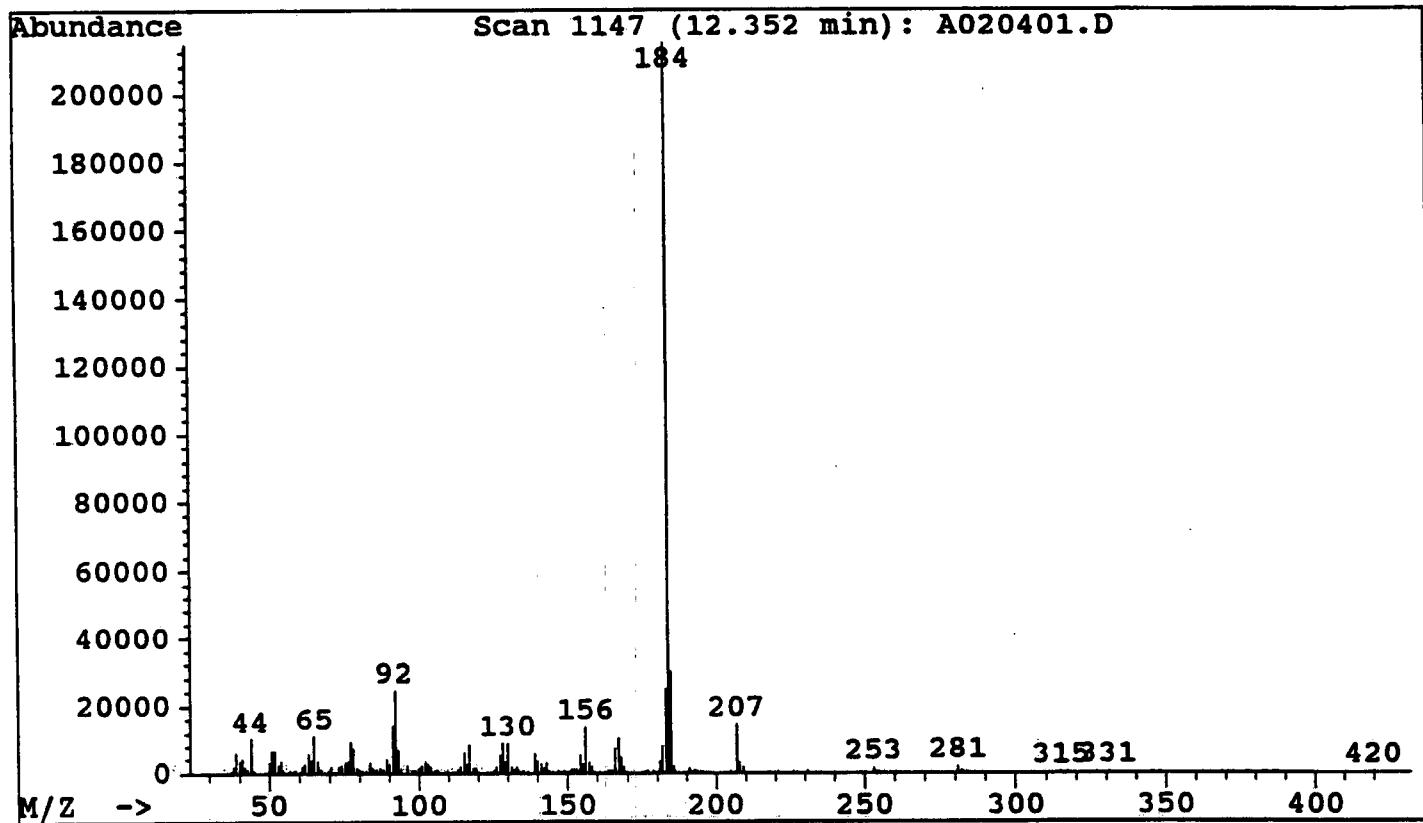
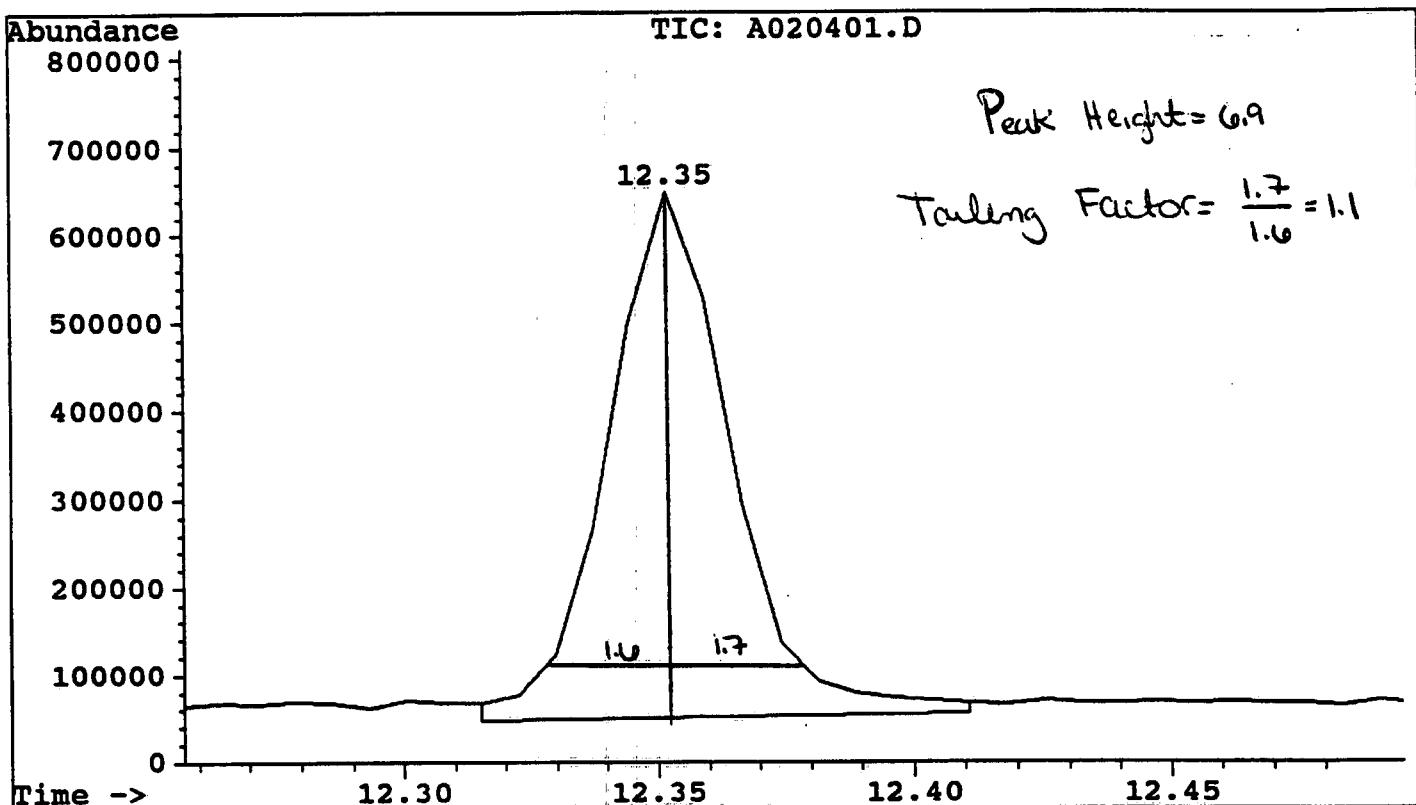
Average of -10.847 to 10.861 min.: A020401.D

DFTPP50,50 NG TUNE

Modified:added subtracted scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
274.90	4376	314.75	120	420.90	91		
275.85	704	322.90	315	421.70	107		
276.85	465	330.90	17	422.90	490		
280.95	40	332.20	90	423.85	82		
281.90	112	333.10	85	440.95	1546		
282.90	44	333.85	264	441.95	9853		
284.15	73	346.00	220	442.90	1990		
290.85	80	353.90	94	443.85	198		
292.80	113	356.75	107	473.90	97		
295.90	1082	364.80	545	493.25	93		
296.85	124	371.75	153				

File: C:\CHEMPC\DATA\A020401.D 0102  
Operator: KAD  
Date Acquired: 4 Feb 93 8:59 am  
Method File: DFTPP827.M  
Sample Name: DFTPP50,50 NG TUNE  
Misc Info: 30M RTX5,A020401,DIL 1.0,HP5971A,2UL INJ  
ALS vial: 1



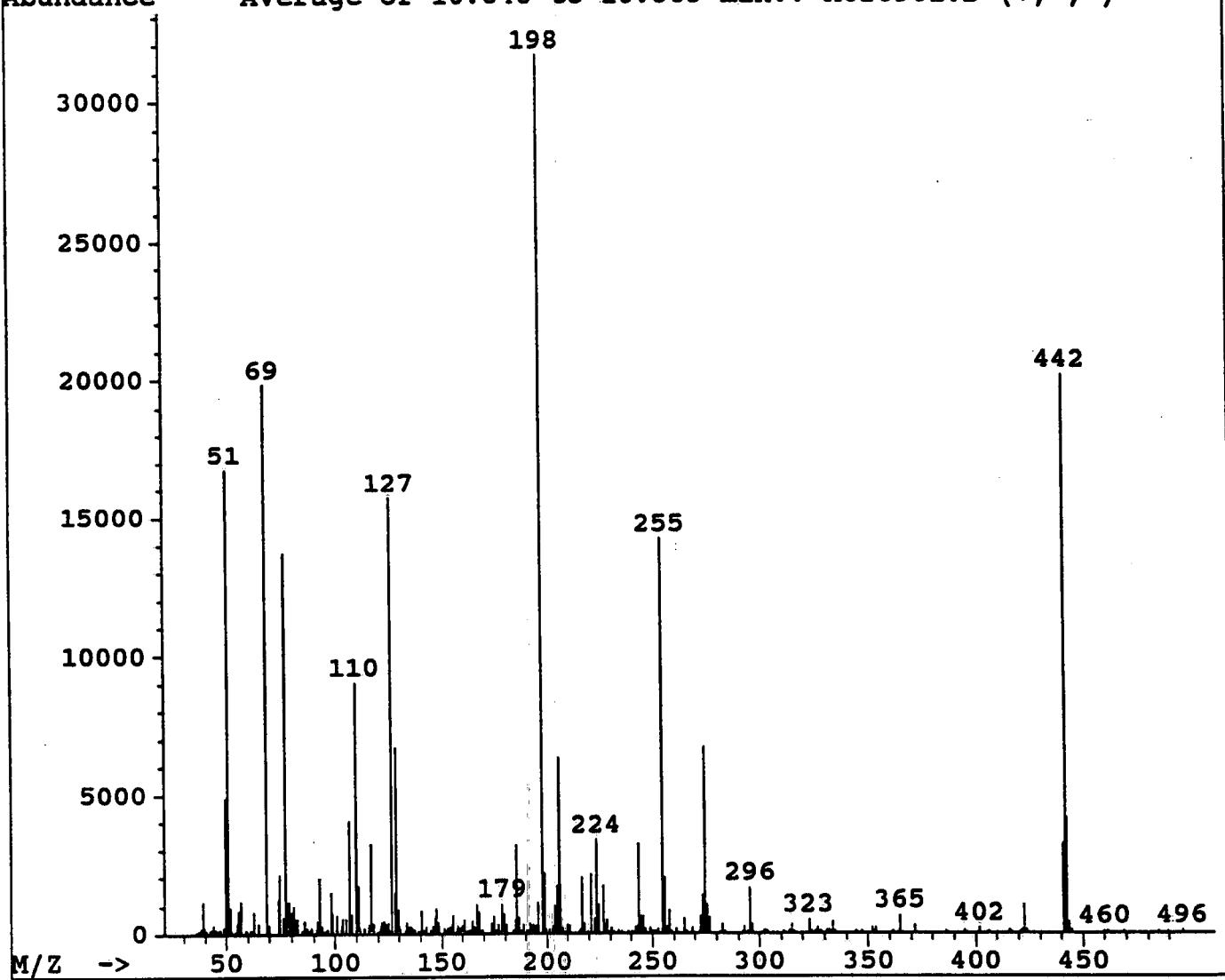
0000105

## DFTPP 625 Results

C:\CHEMPC\DATA\A020901.D

9 Feb 93 8:36 am

Abundance Average of 10.848 to 10.863 min.: A020901.D (+,-,\*)

CK  
KADe  
Oak

Peak Apex is scan: 937

Average of 3 scans: 936, 937, 938 minus background scan 932

Target Mass	Comparison Mass	Lower Limit, %	Upper Limit, %	Relative Abundance, %	Result Pass/Fail
51	198	30	60	53.0	PASS
68	69	0	2	0.0	PASS
69	198	0	100	62.7	PASS
70	69	0	2	1.6	PASS
127	198	40	60	49.7	PASS
197	198	0	1	0.0	PASS
198	198	100	100	100.0	PASS
199	198	5	9	6.8	PASS
275	198	10	30	21.2	PASS
365	198	1	100	2.0	PASS
441	443	0	100	76.5	PASS
442	198	40	100	63.7	PASS
443	442	17	23	20.6	PASS

Average of 10.848 to 10.863 min.: A020901.D 00105

DFTPP50,50 NG TUNE

Modified:added subtracted scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.15	91	47.50	153	58.95	101	76.10	598
36.85	119	49.00	230	59.85	130	77.00	13721
38.00	212	50.00	4869	60.95	12	78.00	1108
39.00	1162	50.95	16754	61.15	137	79.00	1163
39.90	253	51.75	182	61.90	127	79.95	793
40.90	102	52.00	923	63.00	759	80.90	980
42.30	121	52.95	131	64.90	364	81.90	529
42.95	151	54.20	88	68.90	19826	82.95	512
43.95	316	55.00	390	69.90	317	85.00	118
45.00	144	55.95	828	73.95	1245	85.95	432
46.05	112	57.00	1166	74.95	2106	86.95	211

Average of 10.848 to 10.863 min.: A020901.D

DFTPP50,50 NG TUNE

Modified:added subtracted scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
87.85	106	100.90	671	115.95	336	128.00	1408
89.15	187	102.80	270	117.00	3185	128.90	6694
90.90	59	103.90	524	117.90	368	129.85	870
92.05	435	105.00	523	120.05	69	130.75	191
92.90	1954	106.95	4062	121.05	201	132.95	106
94.05	261	107.70	114	121.80	386	133.85	402
95.15	81	107.95	674	123.00	456	134.90	233
96.00	113	109.95	9071	124.00	382	135.85	240
96.95	168	110.95	1658	124.90	389	136.80	172
98.00	1472	111.95	179	125.85	126	137.30	116
98.90	751	114.10	191	126.95	15707	139.20	93

Average of 10.848 to 10.863 min.: A020901.D

DFTPP50,50 NG TUNE

Modified:added subtracted scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
140.05	83	151.60	99	163.05	114	176.10	88
140.90	811	152.85	220	163.95	119	176.95	329
141.85	117	153.85	243	164.95	452	177.75	95
142.15	135	154.90	372	165.90	232	178.85	1032
142.95	248	155.90	667	166.85	1015	179.95	699
144.80	104	157.15	90	167.95	774	180.85	348
145.90	267	157.90	282	168.70	98	184.20	117
146.85	574	158.80	198	169.95	97	185.05	476
147.95	892	159.90	262	174.00	368	185.95	3140
148.90	404	160.85	478	174.90	594	186.90	583
151.20	205	161.90	83	175.80	137	187.75	114

Average of 10.848 to 10.863 min.: A020901.D

DFTPP50,50 NG TUNE

Modified:added subtracted scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
188.75	349	201.55	171	216.05	156	229.75	83
190.30	106	202.95	274	216.85	1972	230.70	212
190.90	140	203.90	982	217.90	358	231.75	94
191.95	368	204.95	1657	219.30	94	233.90	122
192.85	269	206.00	6333	220.90	2082	235.50	70
193.95	349	206.95	1729	222.90	532	238.95	85
195.05	284	207.95	180	223.95	3347	240.70	83
195.85	1089	208.90	62	224.95	1026	242.00	255
197.90	31620	209.90	327	226.90	1678	242.90	280
198.90	2139	210.80	270	227.90	324	243.95	3204
199.75	159	215.65	101	228.90	471	244.90	604

Average of 10.848 to 10.863 min.: A020901.D 0000107

DFTPP50,50 NG TUNE

Modified:added subtracted scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
245.85	612	255.90	1958	274.90	6696	302.10	75
246.35	115	256.95	251	275.90	1017	302.90	111
246.85	170	257.90	806	276.85	585	303.90	89
248.80	201	259.00	76	281.85	20	311.20	88
249.30	95	261.35	144	282.70	308	313.85	114
249.70	88	264.80	523	284.05	92	314.85	333
250.00	88	266.30	88	292.65	95	316.00	85
250.90	83	268.80	176	292.90	228	322.90	481
251.40	88	271.80	91	294.80	78	323.90	80
252.90	164	272.85	602	295.90	1609	325.80	90
254.95	14178	273.95	1328	296.95	312	326.85	211

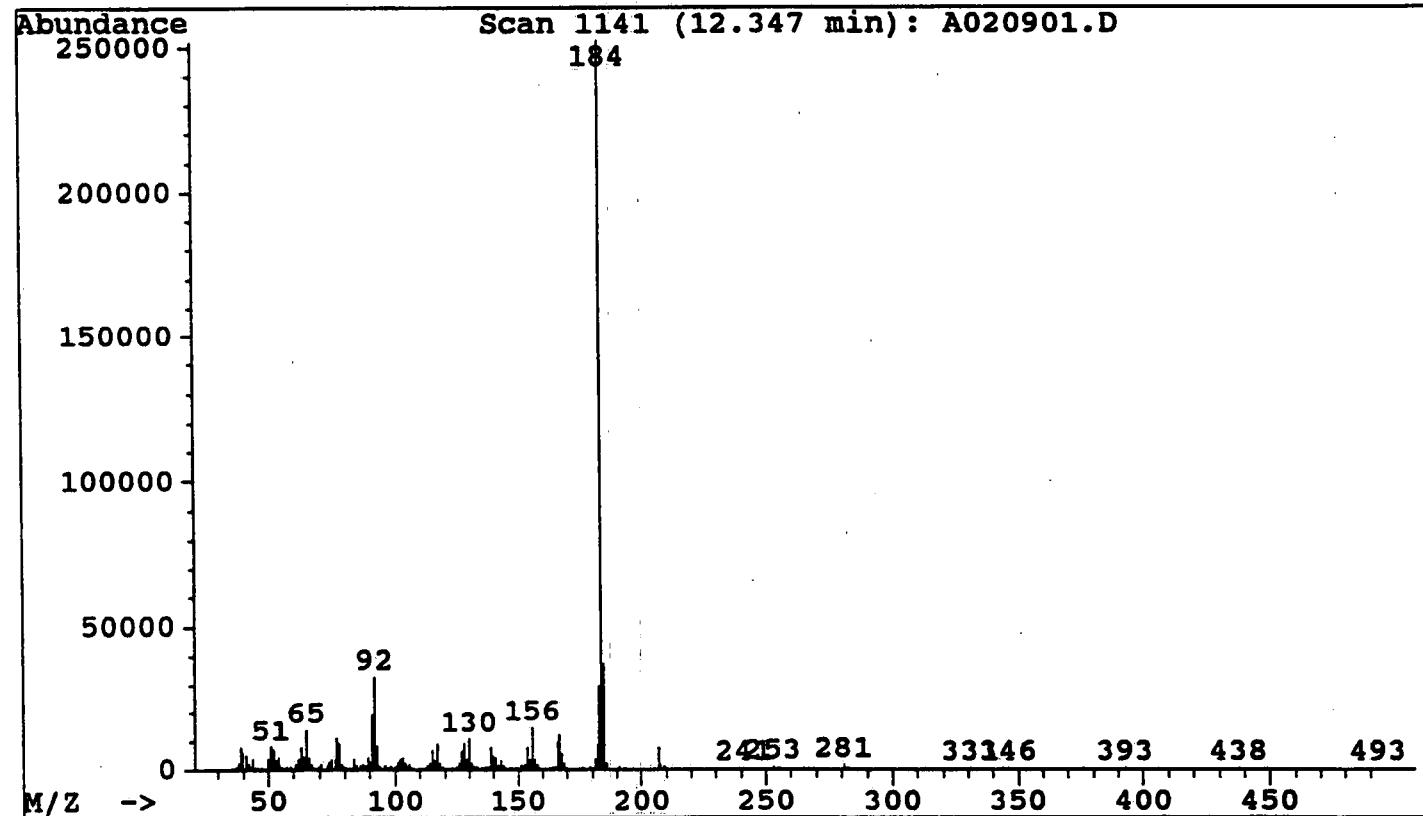
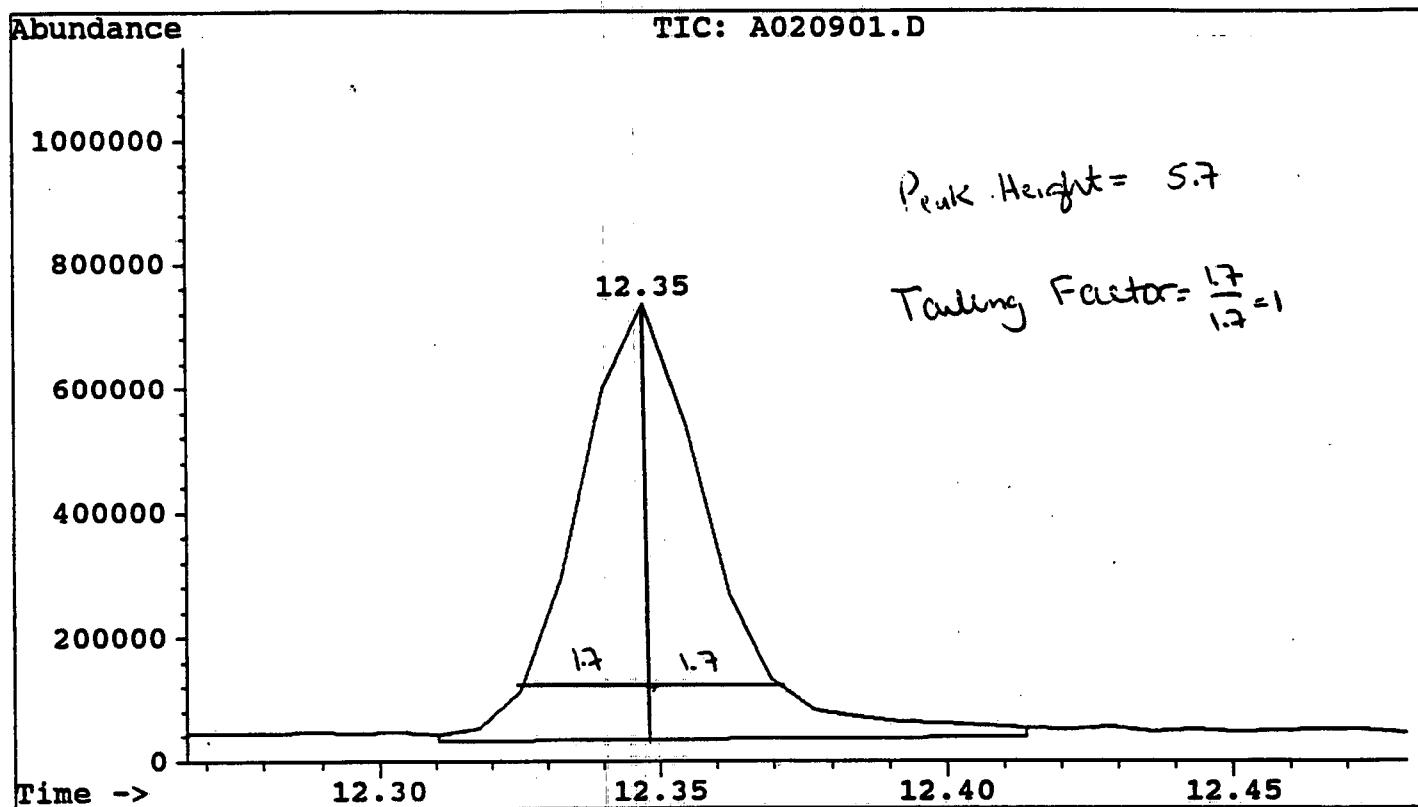
Average of 10.848 to 10.863 min.: A020901.D

DFTPP50,50 NG TUNE

Modified:added subtracted scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
327.75	91	353.85	178	421.80	96	485.25	93
328.25	90	361.60	73	422.90	1006	489.20	93
330.80	105	364.85	639	423.85	143	496.10	101
331.30	100	371.85	296	440.95	3169		
332.30	114	386.35	80	441.95	20152		
333.95	406	394.95	99	442.90	4144		
334.65	84	401.85	182	443.80	418		
344.25	78	406.00	93	444.60	109		
347.10	76	416.05	126	460.10	89		
351.80	179	416.45	84	461.25	87		
352.90	82	421.50	87	468.95	80		

File: C:\CHEMPC\DATA\A020901.D 00108  
Operator: KAD  
Date Acquired: 9 Feb 93 8:36 am  
Method File: DFTPP827.M  
Sample Name: DFTPP50, 50 NG TUNE  
Misc Info: 30M RTX5, A020901, DIL 1.0, HP5971A, 2UL INJ  
ALS vial: 1

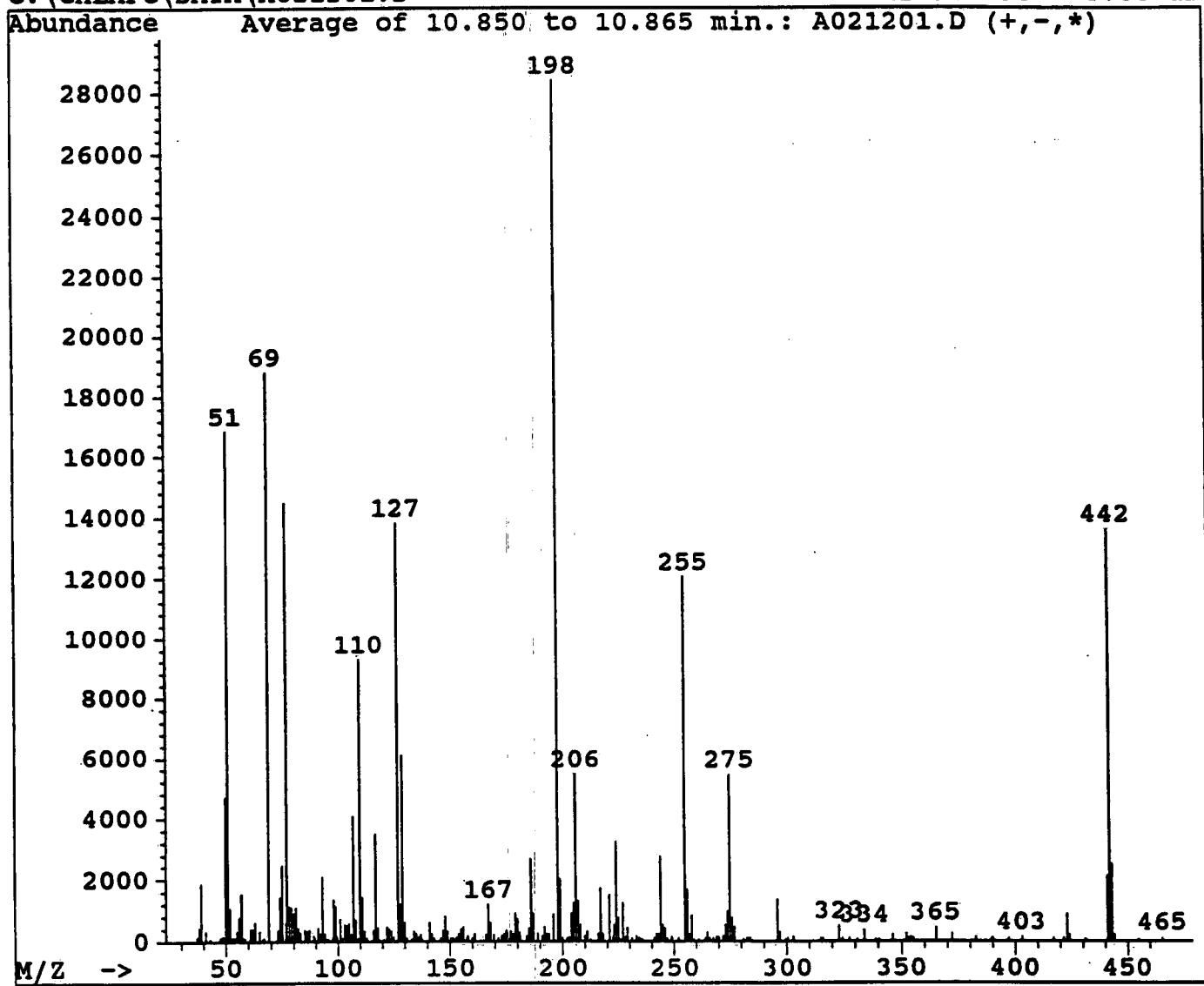


0000109

## DFTPP 625 Results

C:\CHEMPC\DATA\A021201.D

12 Feb 93 8:06 am

442  
Call

Peak Apex is scan: 940

Average of 3 scans: 939, 940, 941 minus background scan 936

Target Mass	Comparison Mass	Lower Limit, %	Upper Limit, %	Relative Abundance, %	Result Pass/Fail
51	198	30	60	59.3	PASS
68	69	0	2	0.0	PASS
69	198	0	100	66.2	PASS
70	69	0	2	0.0	PASS
127	198	40	60	48.7	PASS
197	198	0	1	0.0	PASS
198	198	100	100	100.0	PASS
199	198	5	9	7.1	PASS
275	198	10	30	19.2	PASS
365	198	1	100	1.6	PASS
441	443	0	100	85.0	PASS
442	198	40	100	47.9	PASS
443	442	17	23	18.4	PASS

0000110

Average of 10.850 to 10.865 min.: A021201.D

DFTPP50,50 NG TUNE

Modified:added subtracted scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.95	158	52.85	92	66.05	73	80.90	1081
37.85	434	54.00	89	66.85	111	81.90	426
38.95	1851	54.95	314	68.90	18808	82.95	293
40.95	305	55.95	772	72.90	345	84.95	374
42.95	51	56.95	1558	73.95	1413	86.00	327
47.20	108	57.95	91	74.95	2448	86.85	344
48.40	142	58.25	82	76.05	630	88.80	198
48.90	120	60.95	404	77.00	14491	89.15	91
50.00	4713	61.95	386	78.00	1147	90.95	424
50.95	16848	62.90	627	78.90	1095	92.00	250
52.00	1070	64.95	343	79.90	920	92.95	2110

Average of 10.850 to 10.865 min.: A021201.D

DFTPP50,50 NG TUNE

Modified:added subtracted scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
93.85	237	103.95	518	117.00	3496	129.90	620
94.40	73	104.90	596	117.85	454	130.80	113
95.05	80	105.90	232	118.90	24	132.90	59
95.90	33	106.95	4062	120.45	86	133.95	312
97.05	90	107.95	687	121.95	464	134.90	247
97.95	1348	109.00	116	122.90	405	136.00	128
98.90	1143	109.95	9288	123.90	333	136.90	216
99.60	121	110.90	1434	124.80	159	137.30	84
100.85	750	112.00	321	126.95	13817	140.90	604
101.90	108	112.65	95	128.00	1223	141.90	259
102.90	540	115.90	364	128.90	6105	142.75	109

Average of 10.850 to 10.865 min.: A021201.D

DFTPP50,50 NG TUNE

Modified:added subtracted scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
145.80	100	157.15	116	173.90	238	184.90	433
146.90	378	157.95	184	174.95	383	185.95	2680
147.90	815	160.00	89	176.30	117	186.90	920
148.90	340	160.60	181	176.70	197	188.85	269
150.35	88	160.95	238	177.00	331	190.85	174
151.10	88	165.85	215	177.95	244	191.90	485
152.10	80	166.95	1195	178.90	906	192.90	270
152.90	135	167.85	608	179.90	720	193.95	255
153.90	244	169.25	201	180.90	290	195.85	894
154.90	392	171.15	100	183.80	178	197.90	28394
156.00	487	172.80	179	184.20	147	198.90	2015

Average of 10.850 to 10.865 min.: A021201.D

DFTPP50,50 NG TUNE

Modified:added subtracted scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
199.85	108	212.20	82	227.70	125	244.90	559
201.55	97	215.95	259	228.90	426	245.80	447
202.95	121	216.85	1734	230.95	89	246.85	105
203.95	904	217.85	269	232.55	180	248.80	153
204.90	1251	220.90	1494	233.90	92	251.60	115
206.00	5476	222.05	157	234.20	101	254.95	12039
206.95	1296	222.85	537	235.20	78	255.90	1668
207.90	530	223.95	3227	240.50	97	257.00	252
209.65	190	224.90	765	241.85	264	257.85	835
210.15	83	225.90	86	243.00	258	258.80	87
210.95	310	226.85	1246	243.95	2759	260.75	87

000111  
Average of 10.850 to 10.865 min.: A021201.D

DFTPP50,50 NG TUNE

Modified:added subtracted scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
264.00	113	275.85	753	314.85	99	352.25	103
264.85	296	276.80	478	315.80	94	352.60	107
265.30	85	280.95	56	322.90	506	352.90	88
265.70	100	282.15	105	324.10	113	354.00	144
267.15	114	282.85	91	327.05	117	355.00	116
268.85	127	283.95	116	330.80	81	364.85	449
269.65	121	295.90	1363	333.85	374	365.15	92
271.95	185	296.75	291	339.00	76	371.85	241
272.90	559	299.35	67	340.40	80	382.80	124
273.95	974	300.15	100	345.90	204	389.45	102
274.90	5443	302.90	134	351.85	235	389.90	100

Average of 10.850 to 10.865 min.: A021201.D

DFTPP50,50 NG TUNE

Modified:added subtracted scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
396.95	103	455.05	87				
402.85	146	465.50	118				
417.25	103						
421.80	109						
422.95	871						
423.85	212						
431.35	74						
440.95	2132						
441.95	13596						
442.90	2507						
443.90	209						

0000112

CLIENT SAMPLE NO.

1B

## SEMIVOLATILE ORGANICS ANALYSIS SHEET

SBLK

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0300Client: LE CARPENTERMatrix: WATERLab Sample ID: 93LE0084-MB1Sample wt/vol: 1000 (g/mL) MLLab File ID: A020908Level: (low/med) LOWDate Received: 01/20/93

% Moisture: not dec. \_\_\_\_\_ dec.

Date Extracted: 01/20/93Extraction: (SepF/Cont/Sonc) CONTDate Analyzed: 02/09/93GPC Cleanup: (Y/N) NpH: 7.0Dilution Factor: 1.00

## CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L

111-44-4-----	bis(2-Chloroethyl)ether	10	U
541-73-1-----	1,3-Dichlorobenzene	10	U
106-46-7-----	1,4-Dichlorobenzene	10	U
95-50-1-----	1,2-Dichlorobenzene	10	U
108-60-1-----	bis(2-Chloroisopropyl)ether	10	U
621-64-7-----	N-Nitroso-Di-n-propylamine	10	U
67-72-1-----	Hexachloroethane	10	U
98-95-3-----	Nitrobenzene	10	U
78-59-1-----	Isophorone	10	U
111-91-1-----	bis(2-Chloroethoxy)methane	10	U
120-82-1-----	1,2,4-Trichlorobenzene	10	U
91-20-3-----	Naphthalene	10	U
87-68-3-----	Hexachlorobutadiene	10	U
77-47-4-----	Hexachlorocyclopentadiene	10	U
91-58-7-----	2-Chloronaphthalene	10	U
131-11-3-----	Dimethylphthalate	10	U
208-96-8-----	Acenaphthylene	10	U
606-20-2-----	2,6-Dinitrotoluene	10	U
83-32-9-----	Acenaphthene	10	U
121-14-2-----	2,4-Dinitrotoluene	10	U
84-66-2-----	Diethylphthalate	10	U
7005-72-3-----	4-Chlorophenyl-phenylether	10	U
86-73-7-----	Fluorene	10	U
86-30-6-----	N-Nitrosodiphenylamine (1)	10	U
101-55-3-----	4-Bromophenyl-phenylether	10	U
118-74-1-----	Hexachlorobenzene	10	U
85-01-8-----	Phenanthrene	10	U
120-12-7-----	Anthracene	10	U
84-74-2-----	Di-n-Butylphthalate	10	U
206-44-0-----	Fluoranthene	10	U
129-00-0-----	Pyrene	10	U
85-68-7-----	Butylbenzylphthalate	10	U
91-94-1-----	3,3'-Dichlorobenzidine	20	U

## SEMICOLVATILE ORGANICS ANALYSIS SHEET

SBLK

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0300Client: LE CARPENTERMatrix: WATERLab Sample ID: 93LE0084-MB1Sample wt/vol: 1000 (g/mL) MLLab File ID: A020908Level: (low/med) LOWDate Received: 01/20/93

% Moisture: not dec. \_\_\_\_\_ dec.

Date Extracted: 01/20/93Extraction: (SepF/Cont/Sonc) CONTDate Analyzed: 02/09/93GPC Cleanup: (Y/N) NpH: 7.0Dilution Factor: 1.00

## CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/L

56-55-3-----	Benzo(a)anthracene	10	U
218-01-9-----	Chrysene	10	U
117-81-7-----	bis(2-Ethylhexyl)phthalate	0.8	J
117-84-0-----	Di-n-Octyl phthalate	10	U
205-99-2-----	Benzo(b)fluoranthene	10	U
207-08-9-----	Benzo(k)fluoranthene	10	U
50-32-8-----	Benzo(a)pyrene	10	U
193-39-5-----	Indeno(1,2,3-cd)pyrene	10	U
53-70-3-----	Dibenzo(a,h)anthracene	10	U
191-24-2-----	Benzo(g,h,i)perylene	10	U
62-75-9-----	N-Nitrosodimethylamine	10	U
92-87-5-----	Benzidine	50	U

(1) - Cannot be separated from Diphenylamine

FORM 1 SV-2

12/88 Rev.

1F

0000112

CLIENT SAMPLE NO.

SEMICVOLATILE ORGANICS ANALYSIS SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

SBLK

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0300Client: LE CARPENTERMatrix: WATERLab Sample ID: 93LE0084-MB1Sample wt/vol: 1000 (g/mL) MLLab File ID: A020908Level: (low/med) LOWDate Received: 01/20/93

% Moisture: not dec. \_\_\_\_\_ dec.

Date Extracted: 01/20/93Extraction: (SepF/Cont/Sonc) CONTDate Analyzed: 02/09/93GPC Cleanup: (Y/N) N pH: 7.0Dilution Factor: 1.00

## CONCENTRATION UNITS:

Number TICs found: 2(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	15.19	6	J
2.	UNKNOWN	15.41	10	J

00009115

## QUANT REPORT

Operator ID: TAS Date Acquired: 9 Feb 93 2:35 pm

Data File: C:\CHEMPC\DATA\A020908.D

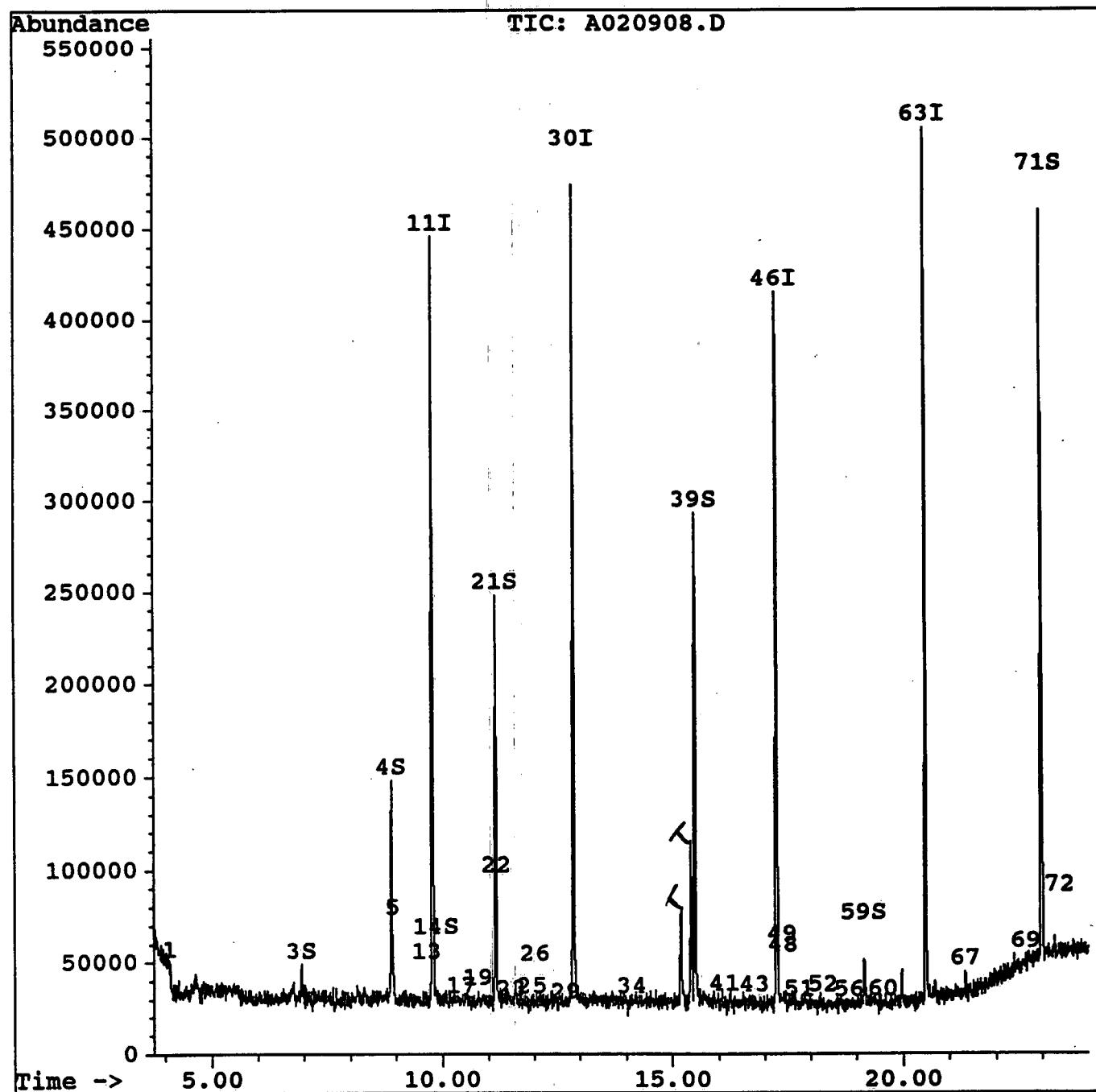
Name: 93LE0084-MB1

Misc: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CCL

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration



0000115

## QUANT REPORT

Operator ID: TAS Date Acquired: 9 Feb 93 2:35 pm

Data File: C:\CHEMPC\DATA\A020908.D

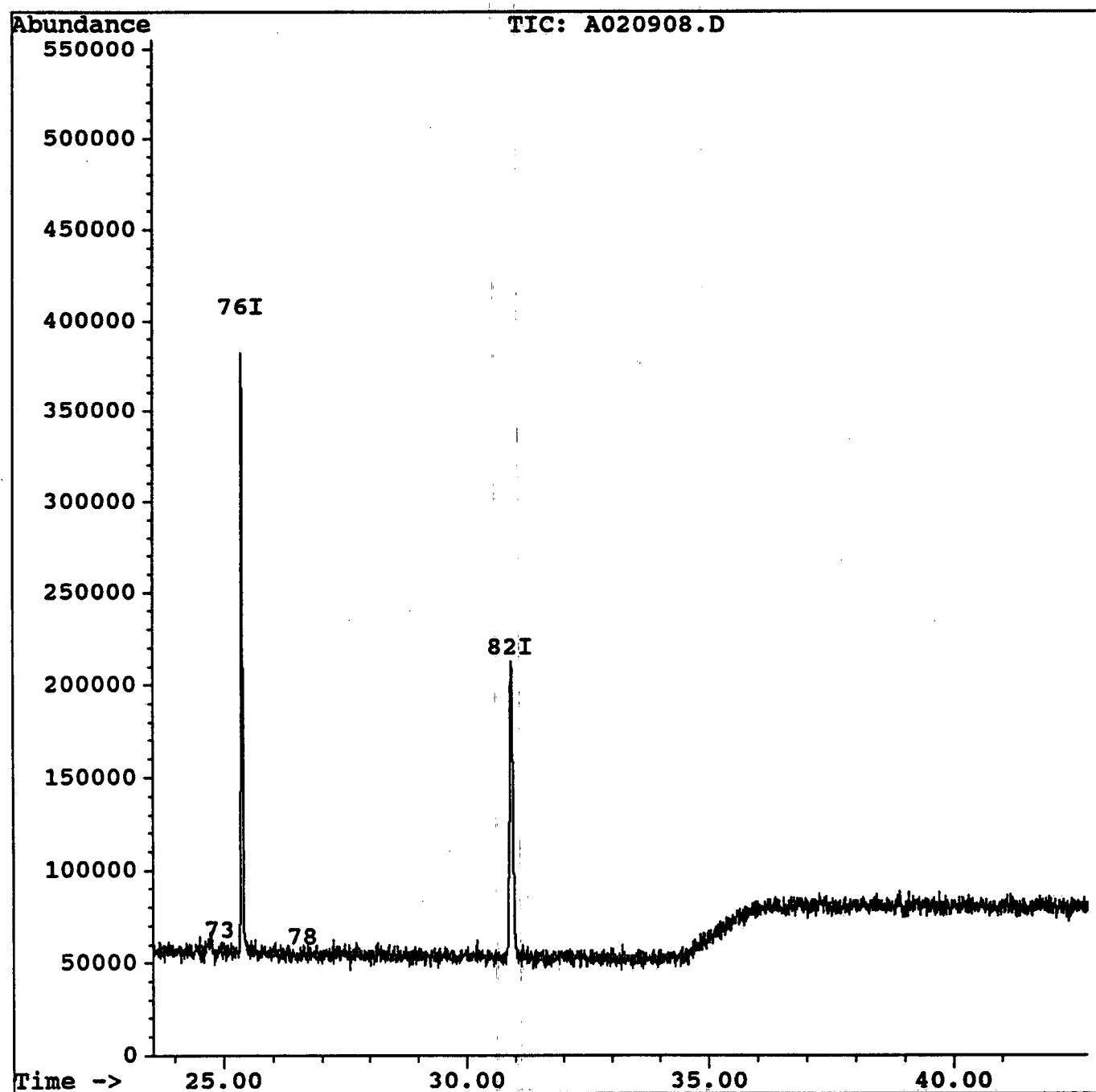
Name: 93LE0084-MB1

Misc: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CCL

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration



0000117

## QUANT REPORT

Operator ID: TAS Date Acquired: 9 Feb 93 2:35 pm

Data File: C:\CHEMPC\DATA\A020908.D

Name: 93LE0084-MB1

Misc: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CCL

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration

## Internal Standards

	Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
11)	1,4-Dichlorobenzene-d4	9.79	152	132701✓	40.00	ul/l	-0.02
30)	Naphthalene-d8	12.86	136	419348✓	40.00	ul/l	-0.01
46)	Acenaphthene-d10	17.26	164	166213✓	40.00	ul/l	-0.02
63)	Phenanthrrene-d10	20.48	188	277642✓	40.00	ul/l	-0.01
76)	Chrysene-d12	25.37	240	259524✓	40.00	ul/l	-0.02
82)	Perylene-d12	30.91	264	243031✓	40.00	ul/l	-0.03

## Surrogate Compounds

					%Recovery
3)	2-Fluorophenol	6.94	112	11922	2.53 ul/l
4)	Phenol-d5	8.90	99	80525	16.37 ul/l
8)	2-Chlorophenol-d4	9.34	132	264	0.06 ul/l
14)	1,2-Dichlorobenzene-d4	9.87	152	695	0.25 ul/l
21)	Nitrobenzene-d5	11.16	82	128140	33.65 ul/l
39)	2-Fluorobiphenyl	15.50	172	154322	27.41 ul/l
59)	2,4,6-Tribromophenol	19.15	330	5040	4.98 ul/l
71)	p-Terphenyl-d14	22.99	244	210566	35.38 ul/l

## Target Compounds

					ISTD#
1)	N-nitrosodimethylamine	4.10	74	522	0.23 ul/l
5)	Phenol	8.94	94	609	0.14 ul/l
13)	Benzyl alcohol	9.69	108	269	0.13 ul/l
17)	bis(2-Chloroisopropyl)ethane	10.42	45	996	0.15 ul/l
19)	n-Nitroso-di-n-propylamine	10.78	70	737	0.52 ul/l
22)	Nitrobenzene	11.19	77	366	0.11 ul/l
23)	Isophorone	11.50	82	855	0.13 ul/l
25)	2-Nitrophenol	11.96	139	298	0.18 ul/l
26)	Benzoic Acid	12.03	122	257	0.19 ul/l
29)	1,2,4-Trichlorobenzene	12.70	180	377	0.13 ul/l
34)	4-Chloro-3-methylphenol	14.14	107	469	0.19 ul/l
41)	2-Nitroaniline	16.14	65	407	0.29 ul/l
43)	2,6-Dinitrotoluene	16.79	165	141	0.14 ul/l
48)	2,4-Dinitrophenol	17.41	184	299	0.73 ul/l
49)	4-Nitrophenol	17.39	109	140	0.23 ul/l
51)	2,4-Dinitrotoluene	17.76	165	144	0.11 ul/l
52)	Diethylphthalate	18.28	149	1372	0.28 ul/l
56)	4,6-Dinitro-2-methylphenol	18.84	198	127	0.19 ul/l
60)	4-Bromophenyl-phenylether	19.57	248	253	0.17 ul/l
67)	Di-n-butylphthalate	21.35	149	7942	0.92 ul/l
69)	Benzidine	22.65	184	281	0.32 ul/l
72)	Butylbenzylphthalate	23.40	149	917	0.26 ul/l
(73)	bis(2-Ethylhexyl)phthalate	24.94	149	3365	0.75 ul/l
78)	Di-n-octylphthalate	26.61	149	1004	0.13 ul/l

KD cal10/93

(#) = qualifier out of range

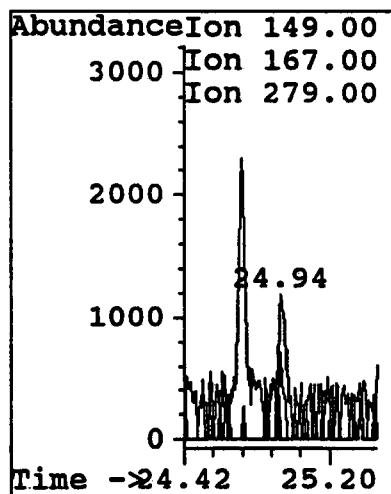
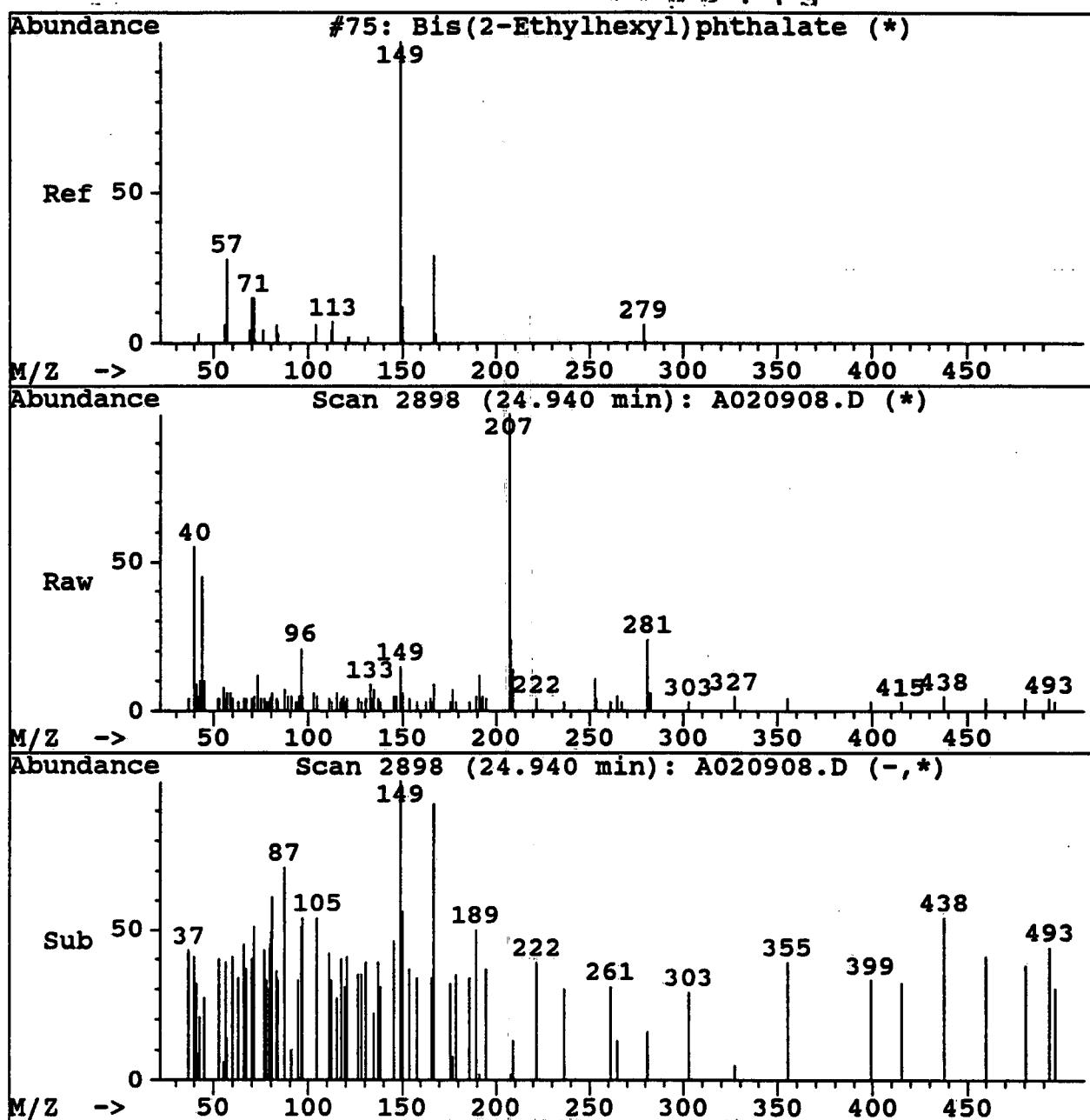
0000118

Tentatively Identified Compound (LSC) summary

Operator ID: TAS Date Acquired: 9 Feb 93 2:35 pm  
Data File: C:\CHEMPC\DATA\A020908.D  
Name: 93LE0084-MB1  
Misc: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CCL  
Method: 625RTE.M  
Title: 625 RTE Integrated Report  
Library Searched: nbs54k.1

TIC name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
4,5-Octanedione	15.19	5.5	ul/l	115659	ISTD03	17.26	835030	40.0
Propanoic acid, 2-me	15.41	10.4	ul/l	217271	ISTD03	17.26	835030	40.0

0000119



OK

Lab File: A020908.D Acq: 9 Feb 93 2:35 pm  
 Sample: 93LE0084-MB1  
 Misc : 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209

#73 bis(2-Ethylhexyl)phthalate  
 Concen: 0.75 ul/l  
 RT: 24.94 min Delta R.T. -0.02 min  
 Tgt Ion:149 Area: 3365

Ion	Ratio	Lower	Upper
149	100		
167	38.4	22.2	33.2#
279	4.6	3.3	4.9
0	0.0	0.0	0.0

0000120

## Tentatively Identified Compound (LSC)

Operator ID: TAS Date Acquired: 9 Feb 93 2:35 pm

Data File: C:\CHEMPC\DATA\A020908.D

Name: 93LE0084-MB1

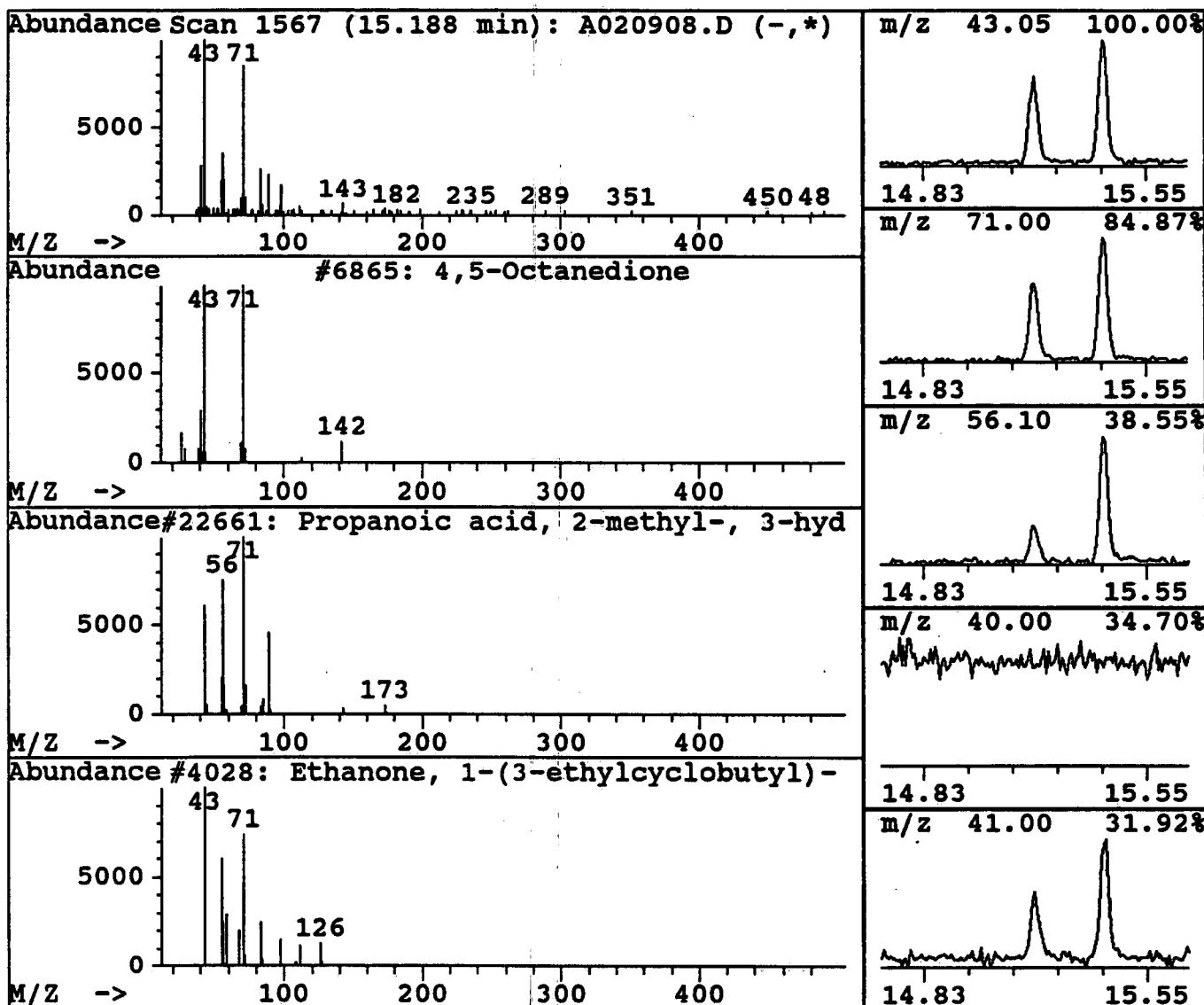
Misc: 30M RTX5, A020901, DIL1.0, 5971A, 2ULINJ, A0209CCL

Method: 625RTE.M

Title: 625 RTE Integrated Report

Library Searched: nbs54k.1

R.T.	Conc	Area	Relative to ISTD	R.T.
15.19	5.54 ul/l	115659	Acenaphthene-d10	17.26
			UNKNOWN ACID	
Hit# of 18		Tentative ID	Ref#	CAS# Qual
1	4,5-Octanedione		6865	005455-24-3 43
2	Propanoic acid, 2-methyl-, 3-hydrox		22661	074367-34-3 42
3	Ethanone, 1-(3-ethylcyclobutyl)-		4028	056335-71-8 40
4	Propanoic acid, 2-methyl-, 2-ethyl-		34409	074367-30-9 37
5	1-Butanol, 4-(hexyloxy)-		13920	004541-13-3 36



0000121

## Tentatively Identified Compound (LSC)

Operator ID: TAS Date Acquired: 9 Feb 93 2:35 pm

Data File: C:\CHEMPC\DATA\A020908.D

Name: 93LE0084-MB1

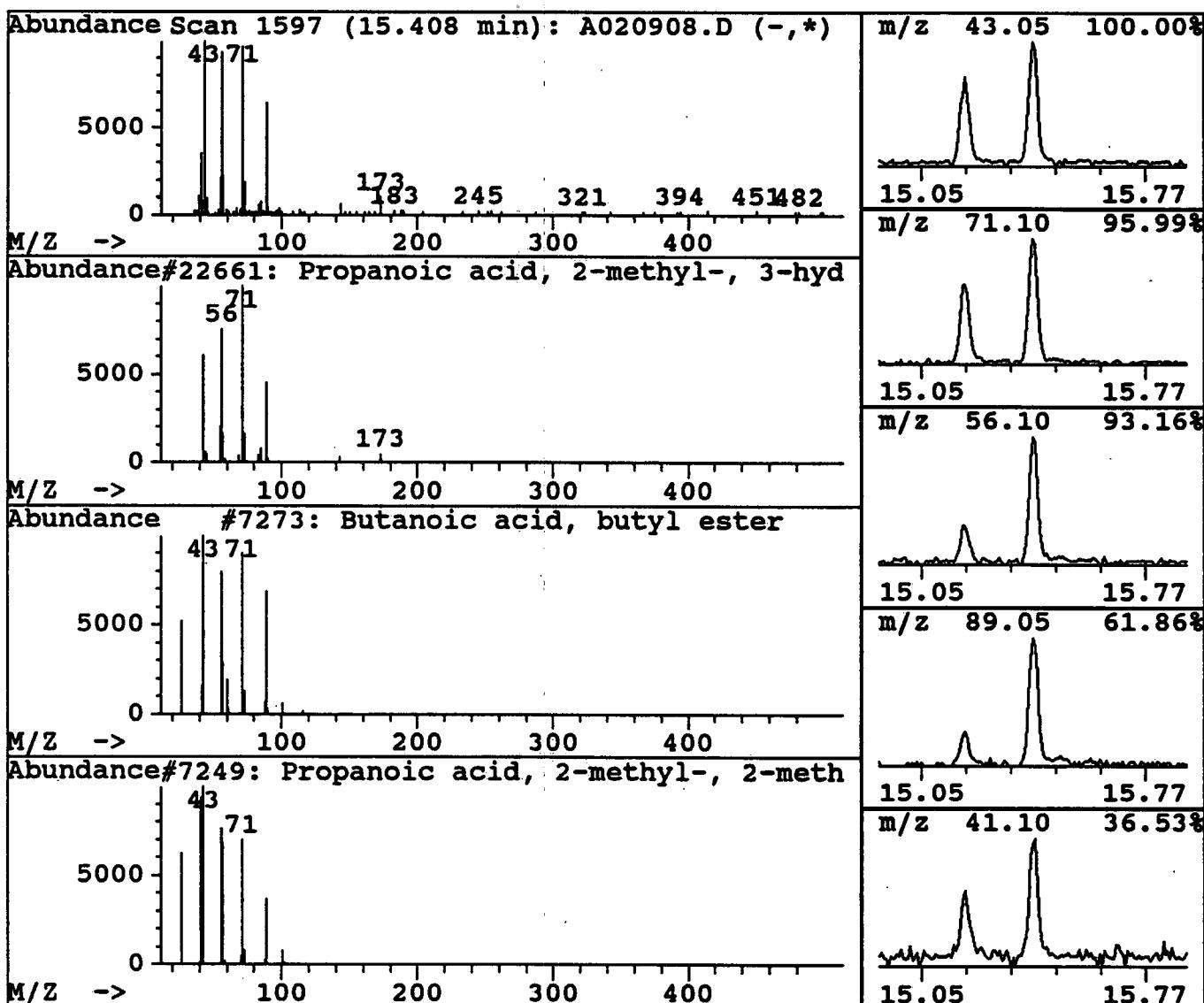
Misc: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CCL

Method: 625RTE.M

Title: 625 RTE Integrated Report

Library Searched: nbs54k.1

R.T.	Conc	Area	Relative to ISTD	R.T.
15.41	10.41 ul/l	217271	Acenaphthene-d10	17.26
			UNKNOWN ACID	
Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Propanoic acid, 2-methyl-, 3-hydrox	22661	074367-34-3	86
2	Butanoic acid, butyl ester	7273	000109-21-7	78
3	Propanoic acid, 2-methyl-, 2-methyl	7249	000097-85-8	64
4	Propanoic acid, 2-methyl-, butyl es	7253	000097-87-0	42
5	1,3-Pentanediol, 2,2,4-trimethyl-	7681	000144-19-4	35



## SEMOVOLATILE ORGANICS ANALYSIS SHEET

SBLKMS

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0300Client: LE CARPENTERMatrix: WATERLab Sample ID: 93LE0084-MB1 BSSample wt/vol: 1000 (g/mL) MLLab File ID: A020909Level: (low/med) LOWDate Received: 01/20/93

% Moisture: not dec. \_\_\_\_\_ dec.

Date Extracted: 01/20/93Extraction: (SepF/Cont/Sonc) CONTDate Analyzed: 02/09/93GPC Cleanup: (Y/N) N pH: 7.0Dilution Factor: 1.00

## CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L

111-44-4-----	bis(2-Chloroethyl)ether	10	U
541-73-1-----	1,3-Dichlorobenzene	10	U
106-46-7-----	1,4-Dichlorobenzene		SP
95-50-1-----	1,2-Dichlorobenzene	10	U
108-60-1-----	bis(2-Chloroisopropyl)ether	10	U
621-64-7-----	N-Nitroso-Di-n-propylamine		SP
67-72-1-----	Hexachloroethane	10	U
98-95-3-----	Nitrobenzene	10	U
78-59-1-----	Isophorone	10	U
111-91-1-----	bis(2-Chloroethoxy)methane	10	U
120-82-1-----	1,2,4-Trichlorobenzene		SP
91-20-3-----	Naphthalene	10	U
87-68-3-----	Hexachlorobutadiene	10	U
77-47-4-----	Hexachlorocyclopentadiene	10	U
91-58-7-----	2-Chloronaphthalene	10	U
131-11-3-----	Dimethylphthalate	10	U
208-96-8-----	Acenaphthylene	10	U
606-20-2-----	2,6-Dinitrotoluene	10	U
83-32-9-----	Acenaphthene		SP
121-14-2-----	2,4-Dinitrotoluene		SP
84-66-2-----	Diethylphthalate	10	U
7005-72-3-----	4-Chlorophenyl-phenylether	10	U
86-73-7-----	Fluorene	10	U
86-30-6-----	N-Nitrosodiphenylamine (1)	10	U
101-55-3-----	4-Bromophenyl-phenylether	10	U
118-74-1-----	Hexachlorobenzene	10	U
85-01-8-----	Phenanthrene	10	U
120-12-7-----	Anthracene	10	U
84-74-2-----	Di-n-Butylphthalate	10	U
206-44-0-----	Fluoranthene	10	U
129-00-0-----	Pyrene		SP
85-68-7-----	Butylbenzylphthalate	10	U
91-94-1-----	3,3'-Dichlorobenzidine	20	U

## SEMICVOLATILE ORGANICS ANALYSIS SHEET

SBLKMS

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0300Client: LE CARPENTERMatrix: WATERLab Sample ID: 93LE0084-MB1 ESSample wt/vol: 1000 (g/mL) MLLab File ID: A020909Level: (low/med) LOWDate Received: 01/20/93

% Moisture: not dec. \_\_\_\_\_ dec.

Date Extracted: 01/20/93Extraction: (SepF/Cont/Sonc) CONTDate Analyzed: 02/09/93GPC Cleanup: (Y/N) N pH: 7.0Dilution Factor: 1.00

## CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L

56-55-3-----	Benzo(a)anthracene	10	U
218-01-9-----	Chrysene	10	U
117-81-7-----	bis(2-Ethylhexyl)phthalate	10	U
117-84-0-----	Di-n-Octyl phthalate	10	U
205-99-2-----	Benzo(b)fluoranthene	10	U
207-08-9-----	Benzo(k)fluoranthene	10	U
50-32-8-----	Benzo(a)pyrene	10	U
193-39-5-----	Indeno(1,2,3-cd)pyrene	10	U
53-70-3-----	Dibenzo(a,h)anthracene	10	U
191-24-2-----	Benzo(g,h,i)perylene	10	U
62-75-9-----	N-Nitrosodimethylamine	10	U
92-87-5-----	Benzidine	50	U

(1) - Cannot be separated from Diphenylamine

SP: SPIKE COMPOUND

FORM 1 SV-2

12/88 Rev.

0000124

## QUANT REPORT

Operator ID: TAS Date Acquired: 9 Feb 93 3:24 pm

Data File: C:\CHEMPC\DATA\A020909.D

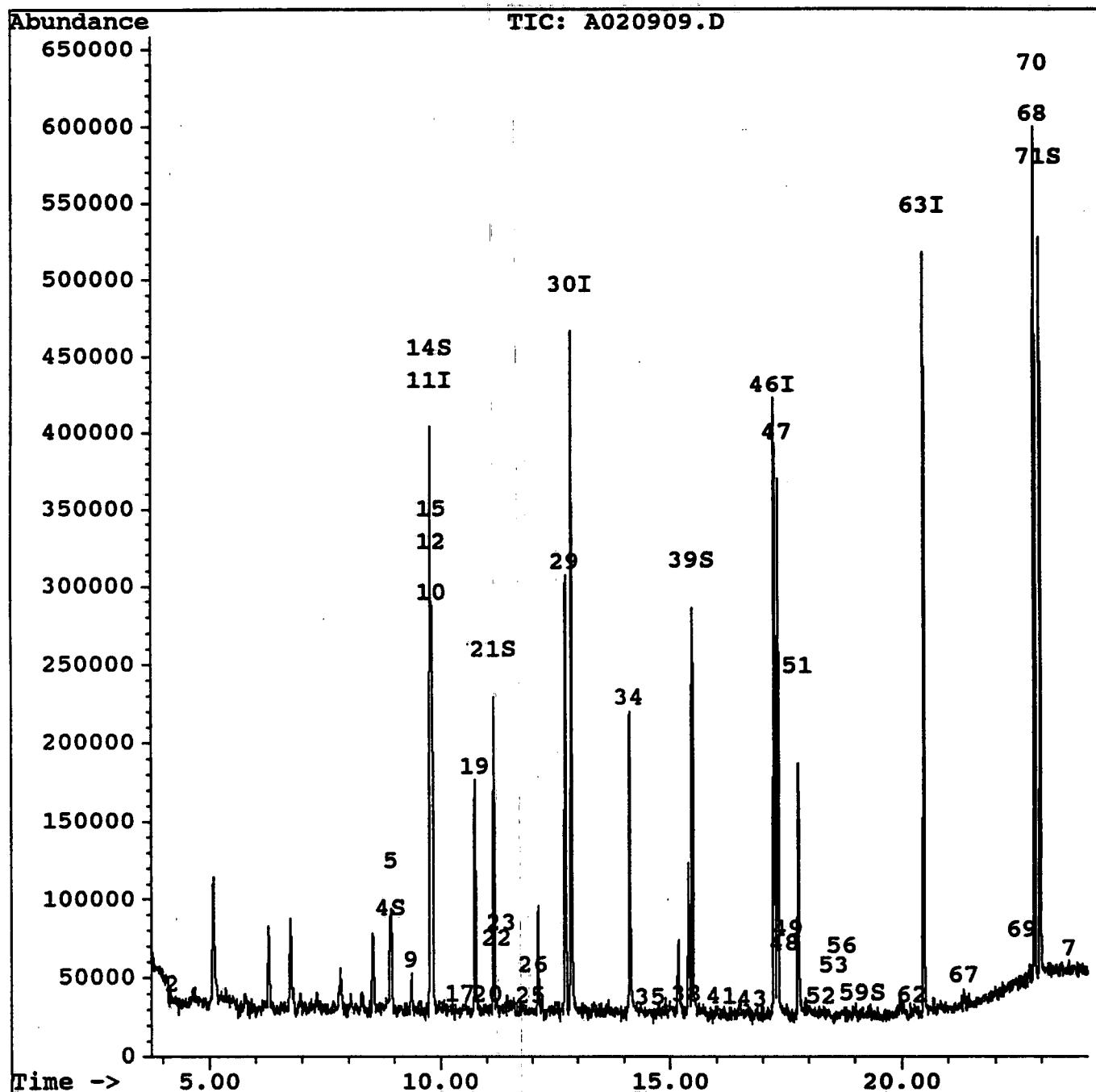
Name: 93LE0084-MB1S

Misc: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CCL

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration

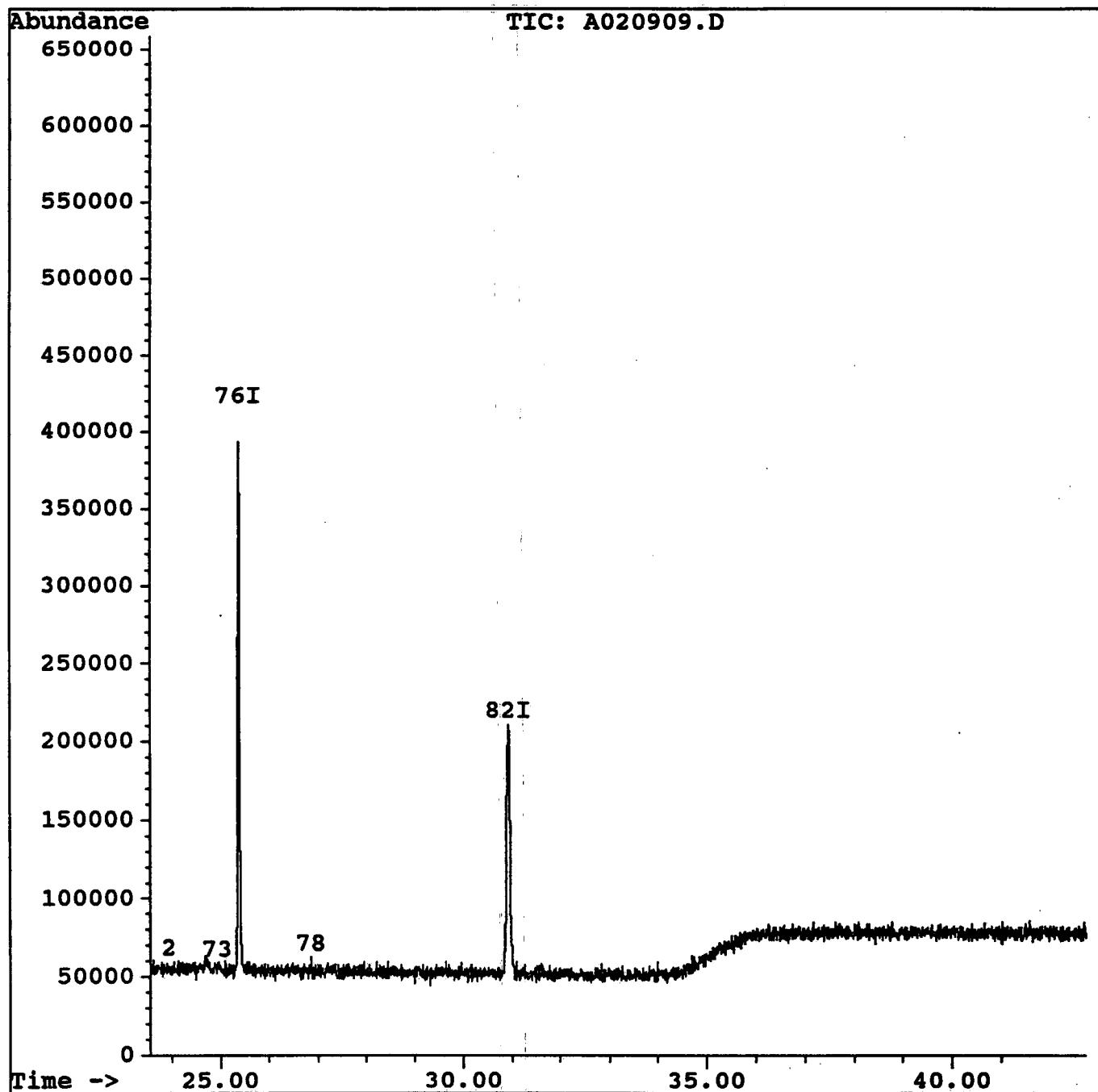


0000125

## QUANT REPORT

Operator ID: TAS Date Acquired: 9 Feb 93 3:24 pm  
Data File: C:\CHEMPC\DATA\A020909.D  
Name: 93LE0084-MB1S  
Misc: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CCL  
Method: 625RTE.M  
Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration



000126

## QUANT REPORT

Operator ID: TAS Date Acquired: 9 Feb 93 3:24 pm

Data File: C:\CHEMPC\DATA\A020909.D

Name: 93LE0084-MB1S

Misc: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CCL

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration

## Internal Standards

	Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
11)	1,4-Dichlorobenzene-d4	9.79	152	124876 ✓	40.00	ul/l	-0.02
30)	Naphthalene-d8	12.85	136	400449 ✓	40.00	ul/l	-0.01
46)	Acenaphthene-d10	17.26	164	165432 ✓	40.00	ul/l	-0.02
63)	Phenanthrene-d10	20.48	188	291591 ✓	40.00	ul/l	-0.01
76)	Chrysene-d12	25.38	240	278797 ✓	40.00	ul/l	-0.01
82)	Perylene-d12	30.93	264	252174 ✓	40.00	ul/l	-0.02

## Surrogate Compounds

					%Recovery
3)	2-Fluorophenol	7.13	112	218	0.05 ul/l 0.05%
4)	Phenol-d5	8.91	99	30443	6.58 ul/l 6.58%
8)	2-Chlorophenol-d4	9.31	132	211	0.05 ul/l 0.05%
14)	1,2-Dichlorobenzene-d4	9.79	152	124998	48.23 ul/l 96.45%
21)	Nitrobenzene-d5	11.16	82	116351	32.00 ul/l 63.99% ✓
39)	2-Fluorobiphenyl	15.50	172	155603	27.76 ul/l 55.53%
59)	2,4,6-Tribromophenol	19.15	330	398	0.37 ul/l 0.37%
71)	p-Terphenyl-d14	22.99	244	234325	36.65 ul/l 73.29% ✓

## Target Compounds

					ISTD#
2)	Pyridine	4.20	79	509	0.12 ul/l 001
5)	Phenol	8.94	94	36390	8.58 ul/l NT 001#
9)	2-Chlorophenol	9.37	128	12648	3.37 ul/l ✓ 001#
10)	1,3-Dichlorobenzene	9.83	146	122161	31.37 ul/l ✓ 001#
12)	1,4-Dichlorobenzene	9.83	146	122161	30.97 ul/l ✓ 001
15)	1,2-Dichlorobenzene	9.83	146	122161	33.12 ul/l ✓ 001
17)	bis(2-Chloroisopropyl)ethane	10.43	45	688	0.11 ul/l 001#
19)	n-Nitroso-di-n-propylamine	10.75	70	50555	37.56 ul/l ✓ 001
20)	Hexachloroethane	11.02	117	265	0.14 ul/l 001#
22)	Nitrobenzene	11.24	77	441	0.14 ul/l 002#
23)	Isophorone	11.34	82	703	0.12 ul/l 002
25)	2-Nitrophenol	11.96	139	186	0.12 ul/l 002#
26)	Benzoic Acid	12.03	122	138	0.10 ul/l 002#
29)	1,2,4-Trichlorobenzene	12.73	180	103837	37.59 ul/l ✓ 002
34)	4-Chloro-3-methylphenol	14.14	107	80928	33.65 ul/l ✓ NT 002
35)	2-Methylnaphthalene	14.58	142	1481	0.29 ul/l 002#
38)	2,4,5-Trichlorophenol	15.36	196	244	0.13 ul/l 003#
41)	2-Nitroaniline	16.13	65	265	0.19 ul/l 003#
43)	2,6-Dinitrotoluene	16.80	165	108	0.10 ul/l 003#
47)	Acenaphthene	17.34	153	155210	37.23 ul/l ✓ 003
48)	2,4-Dinitrophenol	17.48	184	138	0.34 ul/l 003
49)	4-Nitrophenol	17.56	109	150	0.25 ul/l 003
51)	2,4-Dinitrotoluene	17.78	165	48373	37.00 ul/l ✓ 003#
52)	Diethylphthalate	18.28	149	1086	0.22 ul/l 003#
53)	4-Chlorophenyl-phenylether	18.55	204	281	0.12 ul/l 003#
56)	4,6-Dinitro-2-methylphenol	18.71	198	116	0.16 ul/l 004#

(#) = qualifier out of range

KD Cal1093

## QUANT REPORT

Operator ID: TAS Date Acquired: 9 Feb 93 3:24 pm

Data File: C:\CHEMPC\DATA\A020909.D

Name: 93LE0084-MB1S

Misc: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CCL

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration

Compound	R.T.	Qion	Area	Conc	Unit Dev(Min)
62) Pentachlorophenol	20.24	266	322	0.27	ul/l 004#
67) Di-n-butylphthalate	21.35	149	3859	0.43	ul/l 004
(68) Fluoranthene	22.87	202	340978	49.75	ul/l ✓ 004
69) Benzidine	22.61	184	102	0.11	ul/l 004#
70) Pyrene	22.87	202	340978	48.71	ul/l ✓ 005
72) Butylbenzylphthalate	23.79	149	830	0.22	ul/l 005#
73) bis(2-Ethylhexyl)phthalate	24.94	149	3245	0.67	ul/l 005#
78) Di-n-octylphthalate	26.87	149	949	0.11	ul/l 006

(#= qualifier out of range

## SEMOVOLATILE ORGANICS ANALYSIS SHEET

MW-110MS

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0300Client: LE CARPENTERMatrix: WATERLab Sample ID: 9301L306-007 MSSample wt/vol: 460 (g/mL) MLLab File ID: A020912Level: (low/med) LOWDate Received: 01/15/93% Moisture: not dec.        dec.Date Extracted: 01/20/93Extraction: (SepF/Cont/Sonc) CONTDate Analyzed: 02/09/93GPC Cleanup: (Y/N) N pH: 7.0Dilution Factor: 1.00

## CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) ug/L

111-44-4-----	bis(2-Chloroethyl)ether	22	U
541-73-1-----	1,3-Dichlorobenzene	22	U
106-46-7-----	1,4-Dichlorobenzene		SP
95-50-1-----	1,2-Dichlorobenzene	22	U
108-60-1-----	bis(2-Chloroisopropyl)ether	22	U
621-64-7-----	N-Nitroso-Di-n-propylamine		SP
67-72-1-----	Hexachloroethane	22	U
98-95-3-----	Nitrobenzene	22	U
78-59-1-----	Isophorone	22	U
111-91-1-----	bis(2-Chloroethoxy)methane	22	U
120-82-1-----	1,2,4-Trichlorobenzene		SP
91-20-3-----	Naphthalene	22	U
87-68-3-----	Hexachlorobutadiene	22	U
77-47-4-----	Hexachlorocyclopentadiene	22	U
91-58-7-----	2-Chloronaphthalene	22	U
131-11-3-----	Dimethylphthalate	22	U
208-96-8-----	Acenaphthylene	22	U
606-20-2-----	2,6-Dinitrotoluene	22	U
83-32-9-----	Acenaphthene		SP
121-14-2-----	2,4-Dinitrotoluene		SP
84-66-2-----	Diethylphthalate	22	U
7005-72-3-----	4-Chlorophenyl-phenylether	22	U
86-73-7-----	Fluorene	22	U
86-30-6-----	N-Nitrosodiphenylamine (1)	22	U
101-55-3-----	4-Bromophenyl-phenylether	22	U
118-74-1-----	Hexachlorobenzene	22	U
85-01-8-----	Phenanthrene	22	U
120-12-7-----	Anthracene	22	U
84-74-2-----	Di-n-Butylphthalate	4	J
206-44-0-----	Fluoranthene	22	U
129-00-0-----	Pyrene		SP
85-68-7-----	Butylbenzylphthalate	22	U
91-94-1-----	3,3'-Dichlorobenzidine	44	U

## SEMOVOLATILE ORGANICS ANALYSIS SHEET

MW-110MS

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0300Client: LE CARPENTERMatrix: WATERLab Sample ID: 9301L306-007 MSSample wt/vol: 460 (g/mL) MLLab File ID: A020912Level: (low/med) LOWDate Received: 01/15/93

% Moisture: not dec. \_\_\_\_\_ dec.

Date Extracted: 01/20/93Extraction: (SepF/Cont/Sonc) CONTDate Analyzed: 02/09/93GPC Cleanup: (Y/N) N pH: 7.0Dilution Factor: 1.00

## CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/L

CAS NO.	COMPOUND		
56-55-3-----	Benzo(a)anthracene	22	U
218-01-9-----	Chrysene	22	U
117-81-7-----	bis(2-Ethylhexyl)phthalate		E
117-84-0-----	Di-n-Octyl phthalate	22	U
205-99-2-----	Benzo(b)fluoranthene	22	U
207-08-9-----	Benzo(k)fluoranthene	22	U
50-32-8-----	Benzo(a)pyrene	22	U
193-39-5-----	Indeno(1,2,3-cd)pyrene	22	U
53-70-3-----	Dibenzo(a,h)anthracene	22	U
191-24-2-----	Benzo(g,h,i)perylene	22	U
62-75-9-----	N-Nitrosodimethylamine	22	U
92-87-5-----	Benzidine	110	U

(1) - Cannot be separated from Diphenylamine

SP: SPIKE COMPOUND FORM 1 SV-2

12/88 Rev.

## QUANT REPORT

0000130

Operator ID: TAS Date Acquired: 9 Feb 93 5:50 pm

Data File: C:\CHEMPC\DATA\A020912.D

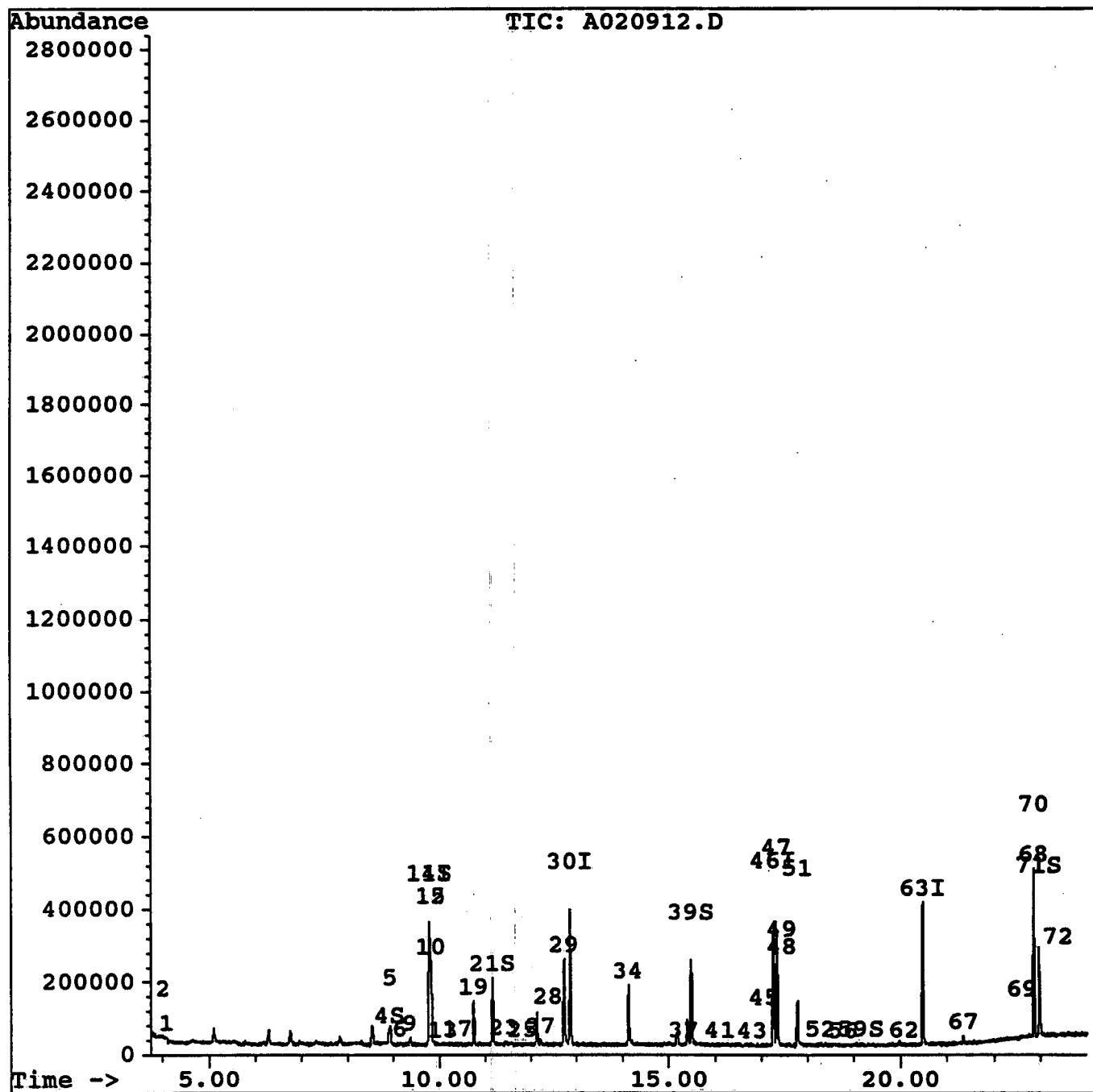
Name: 9301L306-007S LE CARPENTER

Misc: 30M RTX5, A020901, DIL1.0, 5971A, 2ULINJ, A0209CCL

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration



0000131

QUANT REPORT

Operator ID: TAS Date Acquired: 9 Feb 93 5:50 pm

Data File: C:\CHEMPC\DATA\A020912.D

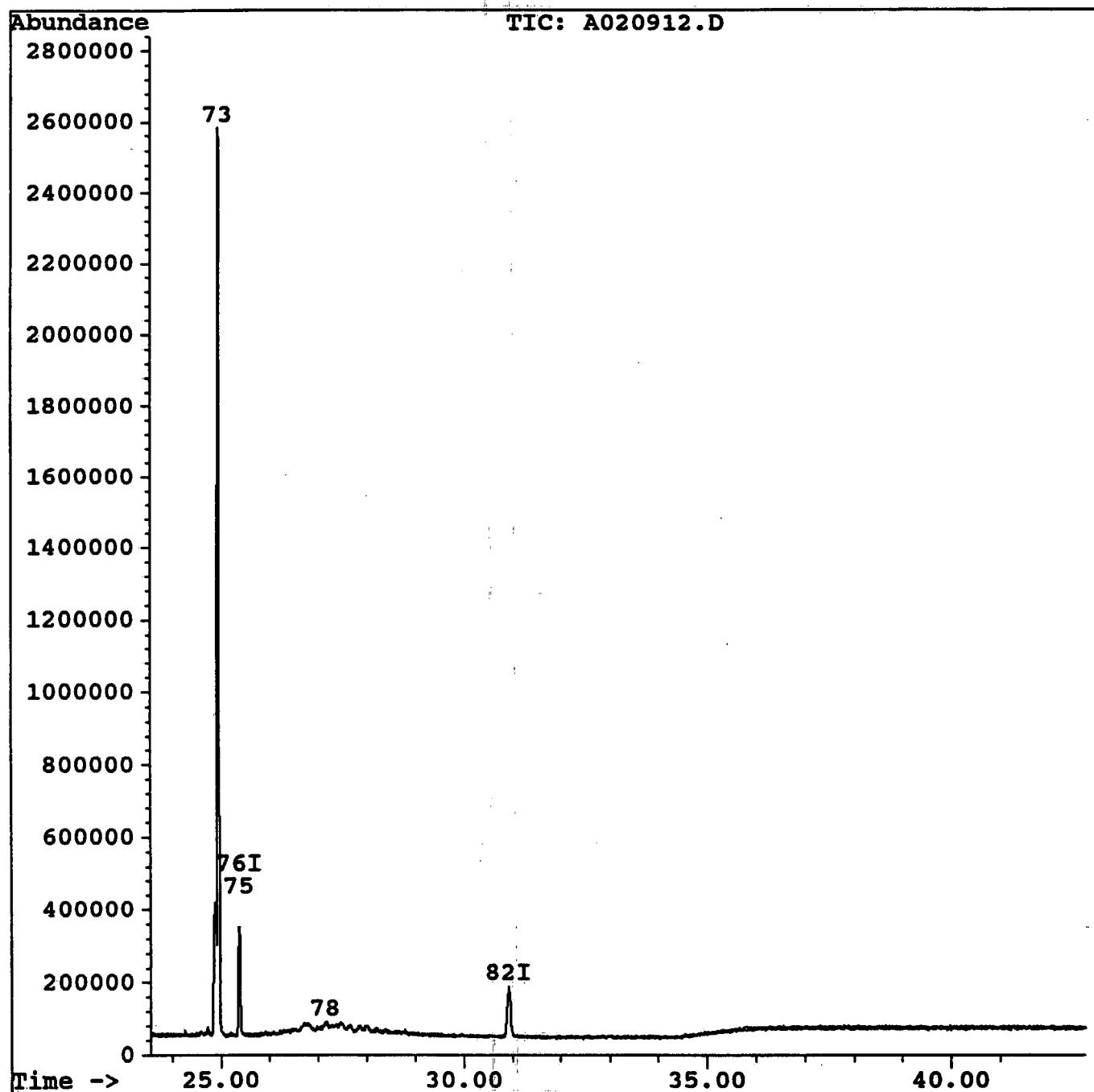
Name: 9301L306-007S LE CARPENTER

Misc: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CCL

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration



## QUANT REPORT

0000132

Operator ID: TAS Date Acquired: 9 Feb 93 5:50 pm

Data File: C:\CHEMPC\DATA\A020912.D

Name: 9301L306-007S LE CARPENTER

Misc: 30M RTX5, A020901, DIL1.0, 5971A, 2ULINJ, A0209CCL

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration

## Internal Standards

Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
11) 1,4-Dichlorobenzene-d4	9.79	152	110984✓	40.00	ul/l	-0.02
30) Naphthalene-d8	12.86	136	338527✓	40.00	ul/l	-0.01
46) Acenaphthene-d10	17.26	164	141106✓	40.00	ul/l	-0.01
63) Phenanthrene-d10	20.49	188	245438✓	40.00	ul/l	-0.00
76) Chrysene-d12	25.38	240	240276✓	40.00	ul/l	-0.01
82) Perylene-d12	30.93	264	217014✓	40.00	ul/l	-0.02

## Surrogate Compounds

Compound	R.T.	Qion	Area	Conc	Unit	%Recovery
3) 2-Fluorophenol	6.63	112	378	0.10	ul/l	0.10%
4) Phenol-d5	8.91	99	22405	5.44	ul/l	5.44%
8) 2-Chlorophenol-d4	9.36	132	138	0.04	ul/l	0.04%
14) 1,2-Dichlorobenzene-d4	9.79	152	111067	48.22	ul/l	96.43%
21) Nitrobenzene-d5	11.16	82	103727	33.74	ul/l	67.48%
39) 2-Fluorobiphenyl	15.50	172	137383	28.74	ul/l	57.48%
59) 2,4,6-Tribromophenol	19.15	330	528	0.59	ul/l	0.59%
71) p-Terphenyl-d14	22.98	244	120645	21.89	ul/l	43.78%

## Target Compounds

Compound	R.T.	Qion	Area	Conc	Unit	ISTD#
1) N-nitrosodimethylamine	4.07	74	210	0.11	ul/l	001#
2) Pyridine	4.02	79	412	0.11	ul/l	001
5) Phenol	8.94	94	26478	7.03	ul/l	001#
6) Aniline	9.16	93	545	0.14	ul/l	001#
9) 2-Chlorophenol	9.37	128	10140	3.04	ul/l	001#
10) 1,3-Dichlorobenzene	9.83	146	107197	30.97	ul/l	001#
12) 1,4-Dichlorobenzene	9.83	146	107197	30.58	ul/l	001#
13) Benzyl alcohol	10.10	108	448	0.25	ul/l	001#
15) 1,2-Dichlorobenzene	9.83	146	107197	32.70	ul/l	001#
17) bis(2-Chloroisopropyl)ethane	10.40	45	778	0.14	ul/l	001#
19) n-Nitroso-di-n-propylamine	10.75	70	41883	35.02	ul/l	001
23) Isophorone	11.44	82	1004	0.19	ul/l	002
25) 2-Nitrophenol	11.82	139	431	0.33	ul/l	002
27) bis(2-Chloroethoxy)methane	12.22	93	1134	0.33	ul/l	002#
28) 2,4-Dichlorophenol	12.39	162	239	0.13	ul/l	002#
29) 1,2,4-Trichlorobenzene	12.73	180	88565	37.92	ul/l	002
34) 4-Chloro-3-methylphenol	14.14	107	68136	33.51	ul/l	002
37) 2,4,6-Trichlorophenol	15.34	196	139	0.11	ul/l	003#
41) 2-Nitroaniline	16.12	65	373	0.31	ul/l	003#
43) 2,6-Dinitrotoluene	16.81	165	124	0.14	ul/l	003#
45) 3-Nitroaniline	17.08	138	233	0.20	ul/l	003#
47) Acenaphthene	17.34	153	142710	40.14	ul/l	003
48) 2,4-Dinitrophenol	17.46	184	175	0.51	ul/l	003#
49) 4-Nitrophenol	17.47	109	149	0.29	ul/l	003#
51) 2,4-Dinitrotoluene	17.78	165	38089	34.15	ul/l	003#
52) Diethylphthalate	18.28	149	2518	0.60	ul/l	003#

(#) = qualifier out of range

KD cal1093

## QUANT REPORT

0000133

Operator ID: TAS Date Acquired: 9 Feb 93 5:50 pm

Data File: C:\CHEMPC\DATA\A020912.D

Name: 9301L306-007S LE CARPENTER

Misc: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CCL

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration

Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
56) 4,6-Dinitro-2-methylphenol	18.75	198	121	0.20	ul/l	004#
62) Pentachlorophenol	20.08	266	107	0.11	ul/l	004#
67) Di-n-butylphthalate	21.35	149	13121	1.73	ul/l	004#
68) Fluoranthene	22.87	202	270147	46.83	ul/l	004
69) Benzidine	22.62	184	284	0.37	ul/l	004#
70) Pyrene	22.87	202	270191	44.79	ul/l	005
72) Butylbenzylphthalate	23.41	149	829	0.26	ul/l	005
73) bis(2-Ethylhexyl)phthalate	24.95	149	1408602	338.12	ul/l	005#
75) Benzo[a]anthracene	25.36	228	645	0.11	ul/l	005#
78) Di-n-octylphthalate	27.15	149	8830	1.24	ul/l	006

(#) = qualifier out of range

## SEMICVOLATILE ORGANICS ANALYSIS SHEET

MW-110MSD

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0300Client: LE CARPENTERMatrix: WATERLab Sample ID: 9301L306-007 MSDSample wt/vol: 460 (g/mL) MLLab File ID: A020913Level: (low/med) LOWDate Received: 01/15/93

% Moisture: not dec. \_\_\_\_\_ dec.

Date Extracted: 01/20/93Extraction: (SepF/Cont/Sonc) CONTDate Analyzed: 02/09/93GPC Cleanup: (Y/N) N pH: 7.0Dilution Factor: 1.00

## CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L

111-44-4-----	bis(2-Chloroethyl)ether	22	U
541-73-1-----	1,3-Dichlorobenzene	22	U
106-46-7-----	1,4-Dichlorobenzene		SP
95-50-1-----	1,2-Dichlorobenzene	22	U
108-60-1-----	bis(2-Chloroisopropyl)ether	22	U
621-64-7-----	N-Nitroso-Di-n-propylamine		SP
67-72-1-----	Hexachloroethane	22	U
98-95-3-----	Nitrobenzene	22	U
78-59-1-----	Isophorone	22	U
111-91-1-----	bis(2-Chloroethoxy)methane	22	U
120-82-1-----	1,2,4-Trichlorobenzene		SP
91-20-3-----	Naphthalene	22	U
87-68-3-----	Hexachlorobutadiene	22	U
77-47-4-----	Hexachlorocyclopentadiene	22	U
91-58-7-----	2-Chloronaphthalene	22	U
131-11-3-----	Dimethylphthalate	22	U
208-96-8-----	Acenaphthylene	22	U
606-20-2-----	2,6-Dinitrotoluene	22	U
83-32-9-----	Acenaphthene		SP
121-14-2-----	2,4-Dinitrotoluene		SP
84-66-2-----	Diethylphthalate	22	U
7005-72-3-----	4-Chlorophenyl-phenylether	22	U
86-73-7-----	Fluorene	22	U
86-30-6-----	N-Nitrosodiphenylamine (1)	22	U
101-55-3-----	4-Bromophenyl-phenylether	22	U
118-74-1-----	Hexachlorobenzene	22	U
85-01-8-----	Phenanthrene	22	U
120-12-7-----	Anthracene	22	U
84-74-2-----	Di-n-Butylphthalate	22	U
206-44-0-----	Fluoranthene	22	U
129-00-0-----	Pyrene		SP
85-68-7-----	Butylbenzylphthalate	22	U
91-94-1-----	3,3'-Dichlorobenzidine	44	U

## SEMICVOLATILE ORGANICS ANALYSIS SHEET

MW-110MSD

Lab Name: Roy F. Weston, Inc. Work Order: 6720-02-15-0300Client: LE CARPENTERMatrix: WATERLab Sample ID: 9301L306-007 MSDSample wt/vol: 460 (g/mL) MLLab File ID: A020913Level: (low/med) LOWDate Received: 01/15/93

% Moisture: not dec. \_\_\_\_\_ dec.

Date Extracted: 01/20/93Extraction: (SepF/Cont/Sonc) CONTDate Analyzed: 02/09/93GPC Cleanup: (Y/N) N pH: 7.0Dilution Factor: 1.00

## CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/L

56-55-3-----	Benzo(a)anthracene	22	U
218-01-9-----	Chrysene	22	U
117-81-7-----	bis(2-Ethylhexyl)phthalate		E
117-84-0-----	Di-n-Octyl phthalate	22	U
205-99-2-----	Benzo(b)fluoranthene	22	U
207-08-9-----	Benzo(k)fluoranthene	22	U
50-32-8-----	Benzo(a)pyrene	22	U
193-39-5-----	Indeno(1,2,3-cd)pyrene	22	U
53-70-3-----	Dibenzo(a,h)anthracene	22	U
191-24-2-----	Benzo(g,h,i)perylene	22	U
62-75-9-----	N-Nitrosodimethylamine	22	U
92-87-5-----	Benzidine	110	U

(1) - Cannot be separated from Diphenylamine

SP: SPIKE COMPOUND

FORM 1 SV-2

12/88 Rev.

0000136

## QUANT REPORT

Operator ID: TAS Date Acquired: 9 Feb 93 6:38 pm

Data File: C:\CHEMPC\DATA\A020913.D

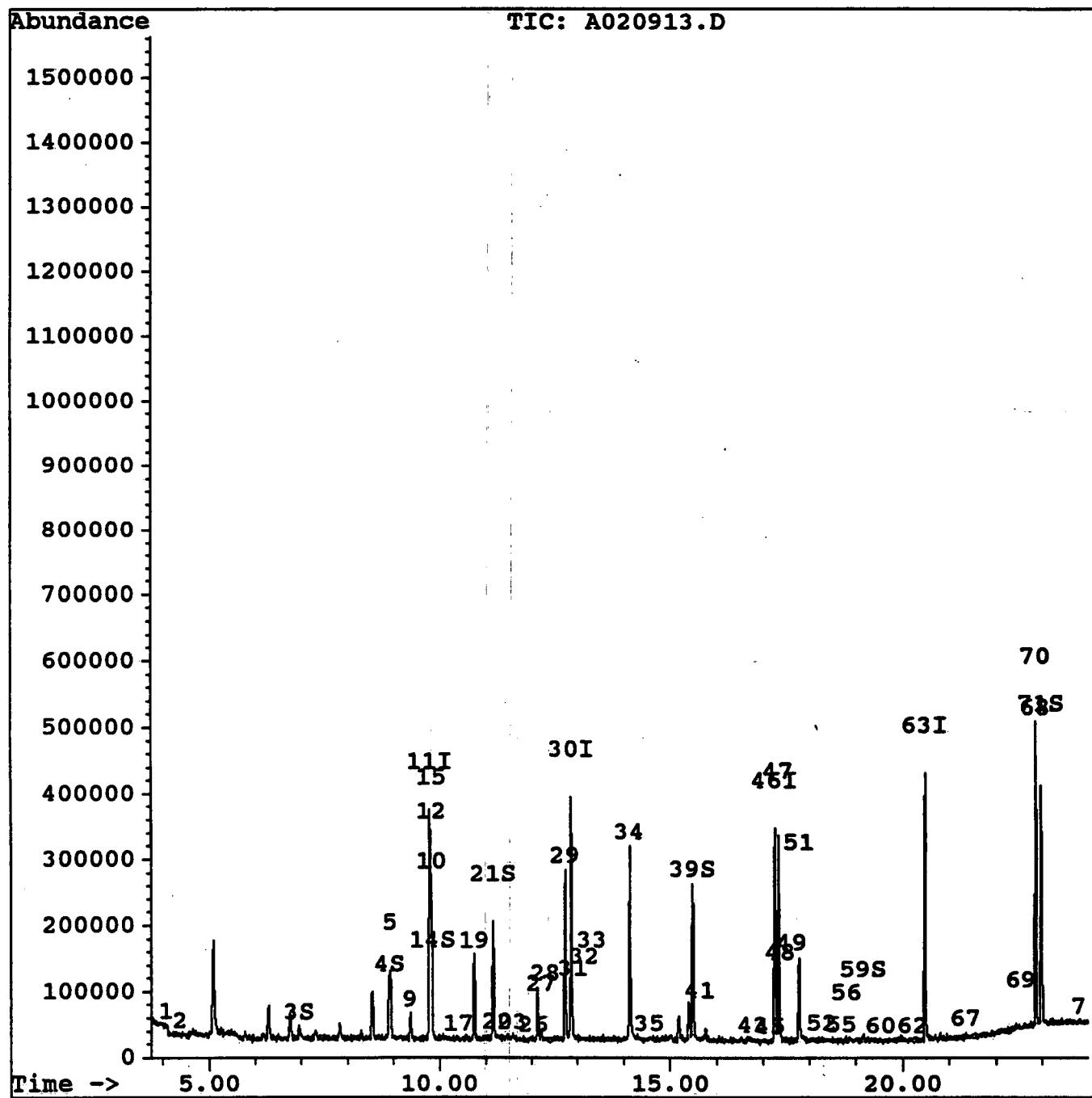
Name: 9301L306-007T LE CARPENTER

Misc: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CCL

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration



0000137  
QUANT REPORT

Operator ID: TAS Date Acquired: 9 Feb 93 6:38 pm

Data File: C:\CHEMPC\DATA\A020913.D

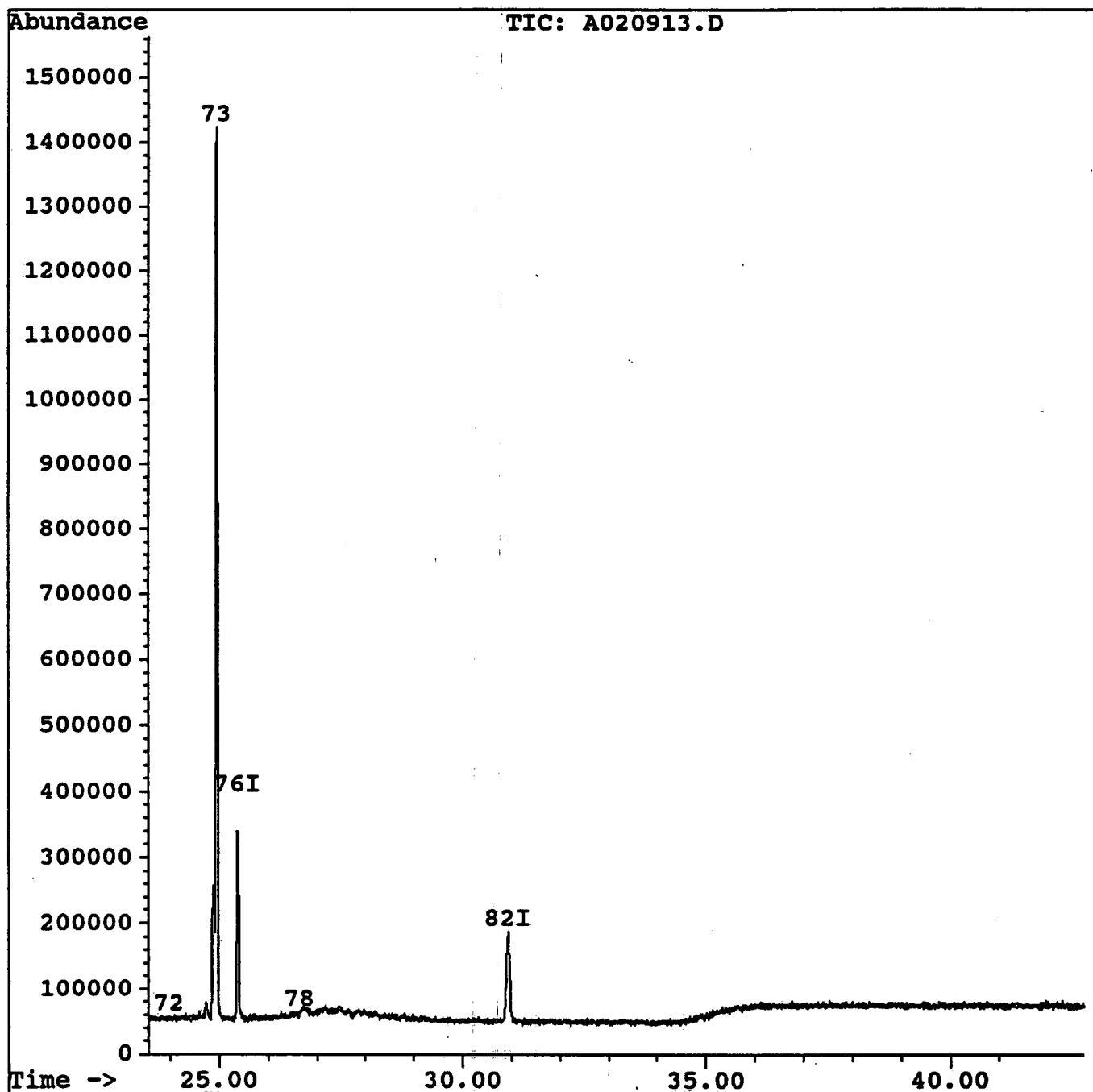
Name: 9301L306-007T LE CARPENTER

Misc: 30M RTX5, A020901, DIL1.0, 5971A, 2ULINJ, A0209CCL

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration



Operator ID: TAS Date Acquired: 9 Feb 93 6:38 pm

Data File: C:\CHEMPC\DATA\A020913.D

Name: 9301L306-007T LE CARPENTER

Misc: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CCL

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration

## Internal Standards

	Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
11)	1,4-Dichlorobenzene-d4	9.79	152	113869✓	40.00	ul/l	-0.01
30)	Naphthalene-d8	12.86	136	342873✓	40.00	ul/l	-0.00
46)	Acenaphthene-d10	17.26	164	139591✓	40.00	ul/l	-0.01
63)	Phenanthrene-d10	20.49	188	233959✓	40.00	ul/l	-0.00
76)	Chrysene-d12	25.38	240	231891✓	40.00	ul/l	-0.01
82)	Perylene-d12	30.92	264	211310✓	40.00	ul/l	-0.02

## Surrogate Compounds

					%Recovery	
3)	2-Fluorophenol	6.94	112	9383	2.32	ul/l
4)	Phenol-d5	8.91	99	52041	12.33	ul/l
8)	2-Chlorophenol-d4	9.35	132	118	0.03	ul/l
14)	1,2-Dichlorobenzene-d4	9.87	152	642	0.27	ul/l
21)	Nitrobenzene-d5	11.16	82	104371	33.52	ul/l
39)	2-Fluorobiphenyl	15.50	172	135824	28.72	ul/l
59)	2,4,6-Tribromophenol	19.16	330	2055	2.41	ul/l
71)	p-Terphenyl-d14	22.99	244	173906	32.70	ul/l

## Target Compounds

					ISTD#
1)	N-nitrosodimethylamine	4.08	74	830	0.43 ul/l
2)	Pyridine	4.38	79	599	0.15 ul/l
5)	Phenol	8.94	94	58648	15.17 ul/l
9)	2-Chlorophenol	9.38	128	20231	5.92 ul/l
10)	1,3-Dichlorobenzene	9.83	146	109449	30.82 ul/l
12)	1,4-Dichlorobenzene	9.83	146	109449	30.43 ul/l
15)	1,2-Dichlorobenzene	9.83	146	109449	32.54 ul/l
17)	bis(2-Chloroisopropyl)ethane	10.42	45	662	0.11 ul/l
19)	n-Nitroso-di-n-propylamine	10.75	70	45146	36.79 ul/l
20)	Hexachloroethane	11.24	117	219	0.12 ul/l
23)	Isophorone	11.57	82	908	0.17 ul/l
26)	Benzoic Acid	12.04	122	607	0.54 ul/l
27)	bis(2-Chloroethoxy)methane	12.20	93	925	0.26 ul/l
28)	2,4-Dichlorophenol	12.31	162	291	0.15 ul/l
29)	1,2,4-Trichlorobenzene	12.73	180	93185	39.40 ul/l
31)	Naphthalene	12.91	128	1166	0.15 ul/l
32)	4-Chloroaniline	13.14	127	328	0.11 ul/l
33)	Hexachlorobutadiene	13.32	225	290	0.19 ul/l
34)	4-Chloro-3-methylphenol	14.14	107	118085	57.34 ul/l
35)	2-Methylnaphthalene	14.55	142	738	0.17 ul/l
41)	2-Nitroaniline	15.66	65	222	0.19 ul/l
43)	2,6-Dinitrotoluene	16.79	165	232	0.26 ul/l
45)	3-Nitroaniline	17.16	138	233	0.20 ul/l
47)	Acenaphthene	17.34	153	142851	40.61 ul/l
48)	2,4-Dinitrophenol	17.39	184	141	0.41 ul/l
49)	4-Nitrophenol	17.64	109	97	0.19 ul/l

(#) = qualifier out of range

KD Oaliol93

0000139

## QUANT REPORT

Operator ID: TAS Date Acquired: 9 Feb 93 6:38 pm

Data File: C:\CHEMPC\DATA\A020913.D

Name: 9301L306-007T LE CARPENTER

Misc: 30M RTX5,A020901,DIL1.0,5971A,2ULINJ,A0209CCL

Method: 625RTE.M

Title: 625 RTE Integrated Report

Quantitated using Single Level Calibration

Compound	R.T.	Qion	Area	Conc	Unit Dev(Min)
51) 2,4-Dinitrotoluene	17.78	165	40769	36.95	ul/l✓ 003#
52) Diethylphthalate	18.28	149	2210	0.53	ul/l 003#
55) 4-Nitroaniline	18.67	138	266	0.23	ul/l 003#
56) 4,6-Dinitro-2-methylphenol	18.81	198	143	0.25	ul/l 004#
60) 4-Bromophenyl-phenylether	19.54	248	147	0.11	ul/l 004#
62) Pentachlorophenol	20.21	266	126	0.13	ul/l 004#
67) Di-n-butylphthalate	21.35	149	3419	0.47	ul/l 004#
68) Fluoranthene	22.87	202	283165	51.49	ul/l✓ 004
69) Benzidine	22.55	184	112	0.15	ul/l 004#
70) Pyrene	22.87	202	283165	48.64	ul/l✓ 005
72) Butylbenzylphthalate	23.98	149	878	0.28	ul/l 005
73) bis(2-Ethylhexyl)phthalate	24.95	149	744756	185.23	ul/l✓ 005#
78) Di-n-octylphthalate	26.65	149	3299	0.47	ul/l 006

(#= qualifier out of range

0000140

**VI. Additional Documentation**

**A. Extraction Record**

## SAMPLE EXTRACTION RECORD

Sheet no.: 1

Extract. Date: 01/20/93

Extraction Batch No: 93LE0084

Analyst: BF

Method: CONT

Test: 0625

cleanup Date:

Analyst:

Client: LE CARPENTER

LIMS Report Date: 02/17/93

Solvent: DCM

Adsorbent:

Sample No:	Client Name	pH	Initial Surr.	Spike	Final	Final	split	GPC	%	C/D
	Client ID	WT/VOL	Mult.	Mult.	VOL	VOL	Mult.	Y/N	Solids	FACTOR
9301L306-	LE CARPENTER									
005	B	FB-1	7.00	890	1.0	2.0	.5	N	1.1	
007	B	MW-110	7.00	890	1.0	2.0	0.5	N	1.1	
007	B	01	MW-110							
007	BS	MW-110	7.00	460	1.0	1.0	2.0	0.5	N	2.2
007	BT	MW-110	7.00	460	1.0	1.0	2.0	0.5	N	2.2
93LE0084-MB1	B		7.00	1000	1.0	2.0	0.5	N	1.0	
93LE0084-MB1	BS		7.00	1000	1.0	1.0	2.0	0.5	N	1.0
93LE0084-MB1	X8		7.00	1000	1.0	1.0	2.0	0.5	N	1.0

Comments: BASE FRACTION ONLY

Surrogate: 500 UL ESU 36C @ 100/200 ug/ML  
spike: 500 UL EMS 16C @ 100/200 ug/ML

Extracts Transferred	Relinquished By	Date Time	Received By	Date Time	Reason for Transfer

000142

**END OF DATA PACKAGE**